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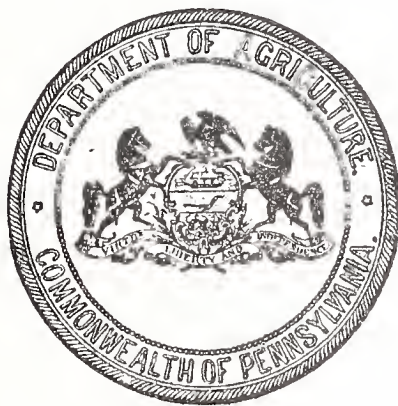
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Fertilizer Report

August 1 to December 31, 1923

JAMES W. KELLOGG, Director—Chief Chemist

BUREAU OF CHEMISTRY



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CONTENTS.

	Page
Letter of Transmittal,	5
Introduction,	7
Acknowledgments,	10
Table I—Deficiencies,	11
Table II—Average Analyses and Retail Prices,	11
Table III—Average Analyses of Complete Fertilizers by Formula Grades,	12
Key to Tables,	13
Table IV—Analyses of Complete Fertilizers,	14
Table V—Analyses of Nitrogen and Phosphoric Acid Fertiliz- ers,	34
Table VI—Analyses of Ground Bone Fertilizers,	36
Table VII—Analyses of Acidulated Phosphate Fertilizers,	38
Table VIII—Analyses of Rock and Potash Fertilizers,	46
Table IX—Analyses of Miscellaneous Fertilizers,	52



LETTER OF TRANSMITTAL

PENNSYLVANIA DEPARTMENT OF AGRICULTURE BUREAU OF CHEMISTRY*

Harrisburg, March 31, 1924.

Hon. F. P. Willits,
Secretary of Agriculture,
Harrisburg, Pa.

Dear Sir:—

I have the honor to transmit herewith for your approval a report showing in tabular form the results of chemical analyses made by this Bureau, in accordance with the requirements of the Fertilizer Law, of the official samples of Commercial Fertilizers, obtained by the Special Agents during the Fall Season of 1923.

It is recommended that this report be published in bulletin form for distribution.

Very respectfully,

JAMES W. KELLOGG,

Director-Chief Chemist.

*On April 1, 1924, the Bureaus of Chemistry and Foods were merged, as shown under "Administrative Organization" on the inside front cover, with James W. Kellogg as assistant director of the Bureau of Foods and Chemistry and chief chemist in charge of the Division of Chemistry.



FERTILIZER REPORT

August 1 to December 31, 1923.

INTRODUCTION

During the Fall shipping season of 1923, 495 official samples of Commercial Fertilizers were obtained by the Special Agents of the Bureau, from selling agencies throughout the State, which, together, with detailed reports covering each lot sampled, were submitted for examination. Of this number 491 samples, representing 372, different brands and kinds registered for 1923 by 49 Manufacturing and Importing firms, were subjected to a chemical analysis to determine the correctness of the guarantees required to be printed on sacks or attached cards for the plant food which they supplied, namely, nitrogen, total, available and insoluble phosphoric acid and water soluble potash.

Six classes or types of fertilizers were represented, which, together with the number of samples and brands in each, were as follows: Complete Fertilizers, supplying nitrogen, available phosphoric acid and potash, 320-232; Nitrogen and Phosphoric Acid Fertilizers, supplying nitrogen and available phosphoric acid, 6-6; Ground Bone Fertilizers, supplying nitrogen and total phosphoric acid, 19-17; Acidulated Phosphate Fertilizers, supplying available phosphoric acid, 74-52; Rock and Potash Fertilizers, supplying available phosphoric acid and water soluble potash, 58-51, and Miscellaneous Fertilizers, 14-14, including Nitrate of Soda, Tankage, Kainit and Muriate of Potash.

It was revealed by the results of analyses that 97, or 19.8 per cent., of the samples were deficient in one or more forms of plant food. These samples classed as deficient were those found to be .2 per cent. or more below, and in the case of .50 per cent. or less guarantees, .10 per cent., below their respective guarantees. This large proportion of deficiencies is not quite as serious as would be indicated by these figures, because in many cases a shortage in one constituent was, in a measure, balanced by an overage in another, as will be noted by referring to the tables showing results of analysis in detail. The number of samples in each class found deficient in the three forms of plant food will be found in Table I.

In the case of the 320 samples and 232 brands of Complete Fertilizers, there were 127 samples and 89 brands, which contained a total of 14 per cent. or more plant food, and 193 samples and 143 brands, which contained less than this total amount, therefore 39.7 per cent. of the samples were considered as being high grade and 60.3 per cent. as low grade Complete Fertilizers.

The high grade brands of Complete Fertilizers averaged 1.89 nitrogen, 9.13 available phosphoric acid, 5.67 water soluble potash, totaling 16.69 per cent. and retailing at an average of \$32.62 a ton, or at an average cost to the consumer of \$1.95 a unit. The low grade brands averaged 1.14 nitrogen, 8.21 available phosphoric acid, 2.84 water soluble potash, totaling 12.19 per cent., and retailing at an average of \$26.92, or \$2.21 a unit. It will be noted that while the high grade brands average 4.50 per cent. more plant food and cost on an average \$5.70 more a ton, the unit value of the high grade brands costs 27¢ less than a unit of plant food supplied by the low grade complete fertilizers.

There were 54 different formula grades of Complete Fertilizers, compared with 19 grades of all classes of mixed fertilizers, the number recognized as sufficient to meet all soil requirements for the Middle Atlantic States, including Pennsylvania, thus showing an unnecessary large variety of formula grades on the market.

The grades of Complete Fertilizers examined, which, judging from the larger number of brands found being offered for sale, included 2-8-5, 2-8-10, 2-12-2, 3-8-3, 1-8-1, 1-8-2, 1-8-4, 1-9-3, 2-8-2 and 2-8-3.

There were wide variations in the retail selling values of these brands having the same formulas and supplying the same amounts of plant food, as illustrated in the case of the 2-8-5 grades where there was a difference of \$13.50 between the highest and the lowest retail ton prices. In the case of the 43 samples, representing as many different shipments, of 27 brands of 1-8-4 fertilizers the highest price reported was \$50, the lowest \$22, showing a difference of \$28 a ton for the same grade.

Where 2 or more samples of the same formula grade of Complete Fertilizers were analyzed the results were averaged and, together with the analyses of those represented by only 1 sample, were classified as high grade and low grade formulas for comparison and with selling values are shown in Table III.

The formula grades of fertilizers recognized as meeting all soil requirements for the Middle Atlantic States, including Pennsylvania, are as follows: For general use, 7-6-5, 6-8-4, 5-8-5, 5-10-5, 4-12-4, 4-8-4, 4-8-6, 3-10-6, 3-8-8, 3-8-3, 2-10-6, 2-12-4, 2-12-2, 4-12-0 and 0-12-6. For special use, 4-8-10, 10-5-0, 0-10-10 and 0-10-4.

An examination was made of the character or quality of organic nitrogen, as supplied by the Complete Fertilizers, by means of the

alkaline permanganate method, which shows what portion of the water insoluble organic nitrogen is active and consequently more readily available than that portion of the nitrogen considered as inactive by this method. The results showed that 60.6 per cent. of the samples supplied organic nitrogen, having an activity in excess of 50 per cent., and that in 39.4 per cent. of the samples the quality of organic nitrogen was less than 50 per cent. active, thereby considered as being poor in quality. In Table V, showing these results, where the organic nitrogen had an activity of 50 per cent. or more, the quality was considered as being satisfactory and are indicated as "passed" and those showing inferior quality as "low".

This proportion of Complete Fertilizers found to supply a satisfactory quality of organic nitrogen, is entirely too low and indicates that the consumers did not receive this class of fertilizers with as high or as readily available source of nitrogen as should have been expected.

The retail selling values of each class of fertilizers, not considering the miscellaneous materials, average in excess of those reported for the corresponding 1922 Fall brands and were close to the average values estimated for the brands examined and representing the preceding spring of 1923 fertilizers and were as follows: Complete Fertilizers, \$29.15; Nitrogen and Phosphoric Acid Fertilizers, \$29.93; Ground Bone Fertilizers, \$50.18; Acid Phosphate Fertilizers, \$18.22; and Rock and Potash Fertilizers, \$24.79 a ton.

In order to show the approximate retail unit value of the plant foods, as supplied by the fertilizers represented by those examined during the Fall inspection, using average compositions and retail ton values as far as possible it was estimated that the available phosphoric acid supplied by the Acid Phosphate cost the consumer approximately \$1.11 a unit. The retail values of the plant foods, as supplied by the Complete Fertilizers, were estimated to be approximately as follows: Nitrogen as ammonia, \$6.62 a unit; available phosphoric acid, \$1.44 a unit, and water soluble potash \$1.32 a unit.

In the following pages will be found Acknowledgments; Table I, showing Deficiencies; Table II, showing Average Analyses and Retail Prices; Table III, Average Analyses of Complete Fertilizers by formula grades; Key to Tables, and Tables showing results of analyses in detail, IV, Complete Fertilizers; V, Nitrogen and Phosphoric Acid Fertilizers; VI, Ground Bone Fertilizers; VII, Acidulated Phosphate Fertilizers; VIII, Rock and Potash Fertilizers; IX, Miscellaneous Fertilizers.

ACKNOWLEDGMENTS

The immediate supervision of the analytical work was in charge of V. B. Hausknecht, First Assistant Chemist, who also had charge of reception and preparation of samples and made duplicate check analyses where required. The microscopical examinations were made by H. E. Gensler, Assistant Chemist. The following Assistant Chemists performed the chemical analyses, G. J. Kuhlmann, Jr., F. B. Williams, and C. R. Engle.

The immediate inspection work in the field was in charge of G. G. Hutchinson, General Agent, and the compilation and preparation of Tables and assembling the necessary data for this report was performed by W. E. Huber, Bookkeeper and Clerk. The samples were prepared for analysis by W. W. Cassel, Laboratory Assistant.

TABLE I—DEFICIENCIES.

Classes of Fertilizers.	Number of samples.	Deficient in nitrogen.	Deficient in available phosphoric acid.	Deficient in potash.
Complete fertilizers, -----	320	3	62	14
Nitrogen and phosphoric acid fertilizers, -----	6		1	
Ground bone fertilizers, -----	19	2	*4	
Acidulated phosphate fertilizers, -----	74		3	
Rock and potash fertilizers, -----	58		7	5
Miscellaneous fertilizers, -----	14			
Totals, -----	491	5	77	19

*Total phosphoric acid.

TABLE II—AVERAGE ANALYSES AND RETAIL PRICES.

	Complete fertilizers.	Nitrogen and phosphoric acid fertilizers, (Dissolved bones, etc.)	Ground bone fertilizers.	Acidulated phosphate fertilizers.	Rock and potash fertilizers.
Number of samples, -----	320	6	19	74	58
Moisture, -----	% 6.08	% 3.37	% 4.52	% 4.73	% 5.85
Total nitrogen, -----	1.44	1.61	3.21		
Total phosphoric acid, -----	9.63	14.27	24.06	17.30	11.48
Available phosphoric acid, -----	8.57	11.25		16.37	10.61
Insoluble phosphoric acid, -----	1.06	3.02		0.93	0.87
Potash, -----	3.97				4.86
Mechanical analysis of bone:					
Fine, -----			60		
Coarse, -----			40		
Selling price, -----	\$29.15	\$29.93	\$50.18	\$18.22	\$24.79
Average selling price, Spring 1923, -----	\$31.86	\$29.42	\$49.50	\$19.39	\$25.80
Average selling price, Fall 1922, -----	\$27.55	\$25.43	\$43.94	\$16.46	\$23.05

TABLE III—AVERAGE ANALYSES OF COMPLETE FERTILIZERS BY FORMULA GRADES.

Formula.	Number of Brands.	Number of Samples.	Nitrogen.	Phosphoric Acid.	Potash.	Price.
High Grade Formulas.						
1-8-5, -----	2	4	0.98	7.71	5.39	26.60
1-8-6, -----	2	3	0.95	8.30	6.38	29.17
1-9-5, -----	1	1	1.08	8.60	5.37	29.00
1½-10-5, -----	1	1	1.45	11.61	6.01	32.50
2-7-5, -----	1	1	1.65	7.58	5.80	26.35
2-8-4, -----	7	10	1.73	8.14	4.15	30.57
2-8-5, -----	13	29	1.77	8.13	5.33	29.95
2-8-10, -----	17	24	1.73	8.26	10.09	33.46
2-9-3, -----	1	2	1.82	9.58	3.02	34.75
2-9-5, -----	1	4	1.68	9.34	5.66	32.01
2-10-2, -----	3	4	1.76	10.39	2.58	31.94
2-10-4, -----	6	6	1.77	9.98	4.67	31.66
2-10-6, -----	2	2	2.65	9.24	7.91	34.73
2-12-2, -----	10	11	1.79	11.78	2.34	31.49
2-12-4, -----	2	4	1.78	11.86	4.54	30.20
2-12-6, -----	1	1	1.74	11.46	6.12	38.00
2-16-2, -----	2	3	1.71	16.09	2.05	34.33
2½-8-5, -----	1	1	2.50	7.29	5.44	33.00
3-8-3, -----	4	4	2.29	9.05	3.51	34.17
3-8-6, -----	1	1	2.52	8.30	5.98	40.00
3-12-3, -----	1	1	2.45	12.13	3.70	35.50
4-8-4, -----	3	3	3.25	8.06	4.26	42.50
4-8-6, -----	2	2	3.51	7.92	5.98	47.50
4-8-10, -----	2	2	3.17	7.66	9.49	48.00
4-12-4, -----	2	2	3.29	11.76	5.00	46.00
8-4-2, -----	1	1	6.53	4.36	2.18	54.00
26 Totals, -----	89	127	1.89	9.13	5.67	32.62
Low Grade Formulas.						
½-6-1, -----	1	1	0.50	6.65	2.06	22.00
½-7-2, -----	1	1	0.92	7.38	3.32	25.00
½-7-3, -----	2	2	0.62	7.09	3.08	22.82
½-8-1, -----	1	1	0.78	8.44	1.69	20.00
½-8-2, -----	5	7	0.56	8.10	2.28	22.05
1-7-1, -----	8	9	0.93	6.99	1.23	25.63
1-7-2, -----	1	1	0.87	7.04	3.27	21.00
1-7-3, -----	1	1	0.75	8.27	3.92	23.00
1-7-4, -----	1	1	1.08	8.28	4.63	33.00
1-7-5, -----	1	1	0.68	7.59	7.21	25.00
1-8-1, -----	12	16	0.95	7.96	1.28	24.27
1-8-2, -----	21	26	0.95	8.28	2.29	25.25
1-8-3, -----	2	2	0.95	8.32	3.19	31.00
1-8-4, -----	27	43	0.95	8.12	4.32	27.81
1-9-2, -----	3	6	1.00	8.77	2.33	26.71
1-9-3, -----	15	21	0.98	9.15	3.23	26.62
1-10-1, -----	1	1	0.95	11.06	1.21	32.00
1½-6-1, -----	1	1	1.65	8.06	2.76	28.00
1½-8-2, -----	1	1	0.97	7.89	2.17	27.00
1½-5-1, -----	1	1	1.27	6.51	2.05	31.00
1½-7-2, -----	1	2	1.63	6.71	2.40	31.00
1½-7-3, -----	1	1	1.50	7.03	3.65	28.00
1½-9-1, -----	1	1	1.93	9.09	1.69	33.00
1½-9-2, -----	1	1	1.87	9.24	2.52	26.00
1½-9-3, -----	1	1	1.96	7.81	3.32	36.00
2-8-2, -----	23	32	1.73	8.26	2.37	23.71
2-8-3, -----	8	11	1.74	8.04	3.23	29.90
2-10-1, -----	1	1	1.80	10.50	1.15	29.00
28 Totals, -----	143	193	1.14	8.21	2.84	26.92
54 Grand total, -----	232	320	1.44	8.57	3.97	29.15

KEY TO TABLES.

The following tables include the detailed results of chemical analyses of each sample. All samples were given a chemist's number as shown in the extreme left and right hand columns and are grouped in alphabetical order of manufactures and brand names. Each class is shown in separate tables and the following information will serve as a key to these tables:

The asterick (*) indicates the cases where total nitrogen, available phosphoric acid and total potash are deficient to the extent of .2 per cent. or more below their respective guarantees. In cases where the guarantees are .5 per cent. or less the deficiencies noted are where the amount is .1 per cent. or more below the guarantees.

Order of results of analysis: Moisture, Total Nitrogen found and guaranteed, Total Phosphoric Acid found and guaranteed; Available Phosphoric Acid found and guaranteed; Insoluble Phosphoric Acid found and guaranteed; Total Potash found and guaranteed, and Potash as Muriate and as Sulphate.

To determine the formula of any brand, as guaranteed, multiply Total Nitrogen guaranteed by 1.2158 to obtain Ammonia and then use this figure and the guarantees for Available Phosphoric Acid and Total Potash. For example, Nitrogen guarantee equals .82% ($.82 \times 1.2158 = 1\%$.) Ammonia equals 1% Available Phosphoric Acid 8% Potash 1%. Formula therefore is 1-8-1.

Table IV, Complete Fertilizers, furnishing Nitrogen, Phosphoric Acid and Potash.

Table V, Nitrogen and Phosphoric Acid Fertilizers, including Dissolved Bones and other like products.

Table VI, Ground Bone Fertilizers, furnishing Nitrogen and Phosphoric Acid.

Table VII, Acidulated Phosphoric Fertilizers, furnishing Phosphoric Acid.

Table VIII, Rock and Potash Fertilizers, furnishing Phosphoric Acid and Potash.

Table IX, Miscellaneous Fertilizers, including Nitrate of Soda, Tankage Kainit and Muriate of Potash.

TABLE IV—COM
Furnishing Nitrogen Phos

Chemist's number.	Name of Manufacturer and Brand.	Sample Taken From—	Moisture.
HIGH GRADE FORMULAS. THE AMERICAN AGRICULTURAL CHEMICAL CO., NEW YORK, N. Y.			
5427	E. Frank Coe's Extra Potash Fertilizer,	Geo. A. Konkle, Montoursville, -----	7.79
5379	Complete Manure with 6% Potash, -----	E. D. Everts Hardware Co., Warren, -----	5.88
5674	High Grade Crop Producer, -----	Wm. M. Holbert, Warrington, -----	2.77
5443	High Grade Potash Compound, -----	Frank L. Allen, Allenwood, -----	7.20
5708	High Grade Potash Compound, -----	Claude Davis, Windber, -----	3.43
5474	High Grade Potash Compound, -----	Solomon DeTurke, Boyertown, -----	7.15
5502	High Grade Potash Compound, -----	Parnassus Hardware Co., Parnassus, -----	7.77
5473	Lazaretto Red Dog Guano, -----	Solomon DeTurke, Boyertown, -----	6.15
5734	Lazaretto Red Dog Guano, -----	B. F. Horting, Newport, -----	4.05
5559	Lister's A. B. C. Fertilizer (Abundance Brand Compound), -----	E. E. & W. J. L. Walker, Kinzers, -----	9.19
5471	Lister's Big Crop Grower, -----	John P. Fisher, Douglassville, -----	8.03
5350	Peerless Vegetable and Grain Grower, --	Edw. Brinton & Sons, West Chester, -----	8.01
5799	Peerless Vegetable and Grain Grower, --	Brown & Rea, Atglen, -----	2.24
5742	Peerless Vegetable and Grain Grower, --	Sausman Brothers, Thompsontown, --	5.46
5710	Peerless Vegetable and Grain Grower, --	Weaver & Berkey, Windber, -----	1.76
5476	Pennsylvania Wheat Special, -----	Solomon DeTurke, Boyertown, -----	8.60
5780	Pennsylvania Wheat Special, -----	Clay Park, Three Springs, -----	6.52
5791	Pennsylvania Wheat Special, -----	H. P. Passmore & Brother, Oxford, -----	7.33
AMERICAN FERTILIZING COMPANY, BALTIMORE, MD.			
5472	American Best Grain and Grass Formula, -----	John P. Fisher, Douglassville, -----	6.90
5713	American Best Potato Formula, -----	John G. Emmert, Somerset, -----	1.76
ARMOUR FERTILIZER WORKS, BAL- TIMORE, MD.			
5326	Armour's Big Crop Fertilizers 2-8-5, ---	Frank Douglass, Indiana, -----	6.76
5694	Armour's Big Crop Fertilizers 2-8-5, ---	Hibner-Hoover Hardware Co., DuBois, -----	5.33
5463	Armour's Big Crop Fertilizers 2-8-5, ---	Passmore & Co., Nottingham, -----	6.40
5453	Armour's Big Crop Fertilizers 2-8-5, ---	J. C. Walker & Sons Co., Gap, -----	5.92
5327	Armour's Big Crop Fertilizers 2-12-2, ---	Frank Douglass, Indiana, -----	8.60
5462	Armour's Big Crop Fertilizers 2-12-2, ---	Passmore & Co., Nottingham, -----	7.69
5325	Armour's Big Crop Fertilizers 2-16-2, ---	Frank Douglass, Indiana, -----	9.97
5365	Armour's Big Crop Fertilizers 2-16-2, ---	Jones Eavenson, Christiana, -----	10.07
5523	Armour's Big Crop Fertilizers 4-8-4, ---	McGarvey Blair Hardware, Waynesburg, -----	7.50
5529	Armour's Big Crop Fertilizers 4-12-4, ---	Geo. L. Moore, Brownsville, -----	7.24
5695	Armour's Big Crop Fertilizers Special Mixture, -----	Hibner-Hoover Hardware Co., DuBois, -----	3.65
5366	Armour's Big Crop Fertilizers Special Mixture, -----	Jones Eavenson, Christiana, -----	5.43
BAUGH & SONS COMPANY, PHILA- DELPHIA, PA.			
5613	Baugh's Balanced Plant Food, -----	P. J. Oesterling & Son, Butler, -----	6.60
5643	Baugh's Commercial Super Phosphate, -----	Fisher & Nolan, Malvern, -----	6.56
5338	Baugh's Commercial Super Phosphate, -----	Thos. K. George, Homer City, -----	8.08
5379	Baugh's Commercial Super Phosphate, -----	Edward Wargo, Danville, -----	6.70
5460	Baugh's Complete Animal Base Fer- tilizer, -----	Bunting Brothers, Oxford, -----	6.78
5705	Baugh's Complete Animal Base Fer- tilizer, -----	Edwards Hardware Co., Ebensburg, --	3.96
5336	Baugh's Complete Animal Base Fer- tilizer, -----	Thos. K. George, Homer City, -----	7.51
5612	Baugh's Complete Animal Base Fer- tilizer, -----	P. J. Oesterling & Son, Butler, -----	5.91
5644	Baugh's Double Eagle Phosphate, -----	Fisher & Nolan, Malvern, -----	7.86

PLETE FERTILIZERS.

phoric Acid and Potash.

NITRO- GEN.		Quality of Organic Nitrogen.	PHOSPHORIC ACID.						POTASH.				Selling price per ton at place of selection.	Chemist's number.
Found.	Guaranteed.		Total.		Available.		Insoluble.		Found.	Guaranteed.	Present as Muriate.	Present as Sulphate.		
			Found.	Guaranteed.	Found.	Guaranteed.	Found.	Guaranteed.						
%	%		%	%	%	%	%	%	%	%	%	%	\$	
1.65	1.65	Passed	9.39	9.00	8.31	8.00	1.08	1.00	10.02	10.00	10.02	-----	35 00	5427
3.11	3.29	Passed	8.97	9.00	8.03	8.00	0.94	1.00	*5.52	6.00	5.52	-----	60 00	5579
1.83	1.65	Passed	9.03	9.00	8.23	8.00	0.80	1.00	4.59	4.00	4.59	-----	32 00	5674
1.61	1.65	Passed	9.59	9.00	8.29	8.00	1.30	1.00	10.06	10.00	1.10	8.96	33 55	5443
1.96	1.65	Passed	9.36	9.00	8.02	8.00	1.34	1.00	10.23	10.00	10.23	-----	36 00	5708
1.86	1.65	Passed	9.57	9.00	8.06	8.00	1.51	1.00	*9.05	10.00	9.05	-----	32 85	5474
1.88	1.65	Passed	9.46	9.00	8.52	8.00	0.94	1.00	*9.51	10.00	9.51	-----	39 00	5502
1.75	1.65	Passed	8.69	9.00	*7.39	8.00	1.30	1.00	4.03	4.00	4.03	-----	27 65	5473
1.78	1.65	Passed	9.21	9.00	7.97	8.00	1.24	1.00	4.02	4.00	4.02	-----	26 75	5734
1.85	1.65	Low	13.01	13.00	*11.03	12.00	1.98	1.00	2.14	2.00	2.14	-----	30 00	5559
1.73	1.65	Passed	9.20	9.00	7.88	8.00	1.32	1.00	4.21	4.00	4.21	-----	-----	5471
1.66	1.65	Passed	9.44	9.00	8.46	8.00	0.98	1.00	4.88	5.00	4.88	-----	34 00	5350
1.75	1.65	Passed	9.58	9.00	8.16	8.00	1.42	1.00	5.82	5.00	5.82	-----	25 00	5799
1.73	1.65	Passed	9.57	9.00	8.45	8.00	1.12	1.00	5.09	5.00	5.09	-----	-----	5742
1.83	1.65	Passed	9.07	9.00	8.00	8.00	1.07	1.00	5.39	5.00	5.39	-----	33 00	5710
1.76	1.65	Passed	13.10	13.00	*11.79	12.00	1.31	1.00	4.66	4.00	4.66	-----	31 60	5476
1.81	1.65	Passed	13.30	13.00	11.97	12.00	1.33	1.00	4.55	4.00	4.55	-----	30 00	5780
1.60	1.65	Passed	13.62	13.00	12.08	12.00	1.54	1.00	4.57	4.00	4.57	-----	29 00	5791
1.93	1.65	Passed	13.11	13.00	*11.59	12.00	1.52	1.00	4.39	4.00	4.39	-----	-----	5472
3.90	3.29	Passed	8.36	9.00	7.81	8.00	0.55	1.00	6.44	6.00	6.44	-----	35 00	5713
1.69	-----	Low	8.95	-----	7.92	8.00	1.03	0.50	5.54	5.00	5.54	-----	35 00	5326
1.83	1.65	Low	9.41	8.50	8.55	8.00	0.86	0.50	5.07	5.00	5.07	-----	38 00	5694
1.74	1.65	Passed	9.02	8.50	8.18	8.00	0.84	0.50	5.72	5.00	5.72	-----	25 00	5463
1.85	1.65	Low	9.24	8.50	8.28	8.00	0.96	0.50	5.41	5.00	5.41	-----	28 00	5453
1.66	1.65	Low	12.25	12.50	*11.71	12.00	0.54	0.50	2.30	2.00	2.30	-----	36 00	5327
1.70	1.65	Low	12.27	12.50	*11.79	12.00	0.48	0.50	2.24	2.00	2.24	-----	26 00	5462
1.68	1.65	Passed	16.71	16.50	16.17	16.00	0.54	0.50	2.00	2.00	2.00	-----	39 00	5325
1.77	1.65	Passed	16.62	16.50	16.08	16.00	0.54	0.50	2.01	2.00	2.01	-----	33 00	5365
3.30	3.29	Low	8.90	8.50	*7.78	8.00	1.12	0.50	4.30	4.00	4.30	-----	45 00	5523
3.32	3.29	Low	12.39	12.50	12.05	12.00	0.34	0.50	4.39	4.00	4.39	-----	46 00	5529
1.90	1.65	Low	12.69	9.50	9.81	9.00	2.88	0.50	3.07	3.00	3.07	-----	39 50	5695
1.74	1.65	Low	11.79	9.50	9.35	9.00	2.44	0.50	2.96	3.00	2.96	-----	30 00	5366
1.89	1.65	Low	11.66	12.00	*10.68	12.00	0.92	-----	3.24	2.00	3.24	-----	35 00	5613
1.92	1.65	Passed	9.24	8.00	8.22	8.00	1.02	-----	10.49	10 00	10.49	-----	35 00	5643
1.74	1.65	Passed	9.18	8.00	8.14	8.00	1.04	-----	10.00	10.00	10.00	-----	35 00	5338
1.74	1.65	Passed	9.16	8.00	8.22	8.00	0.94	-----	10.34	10.00	10.34	-----	33 00	5379
2.00	1.65	Passed	9.24	8.00	8.08	8.00	1.16	-----	5.23	5.00	5.23	-----	27 50	5460
1.89	1.65	Passed	9.30	8.00	8.20	8.00	1.10	-----	5.12	5.00	5.12	-----	33 50	5705
1.89	1.65	Low	9.04	8.00	7.92	8.00	1.12	-----	5.00	5.00	5.09	-----	32 00	5336
1.88	1.65	Passed	9.27	8.00	8.07	8.00	1.20	-----	5.22	5.00	5.22	-----	34 00	5612
1.85	1.65	Passed	11.02	10.00	10.30	10.00	0.72	-----	4.47	4.00	4.47	-----	31 00	5644

*Deficient.

TABLE IV—COM

Chemist's number.	Name of Manufacturer and Brand.	Sample Taken From—	Moisture.
5353	Baugh's Grain and Grass Grower, -----	Fisher & Nolan, Malvern, -----	10.09
5461	Baugh's Half and Half Mixture with Potash, -----	Bunting Brothers, Oxford, -----	6.65
	BOWKER FERTILIZER COMPANY, SUBSIDIARY OF THE AMERICAN AGRICULTURAL CHEMICAL CO., NEW YORK, N. Y.		
5536	Bowker's Corn and Wheat Guano, ----	W. B. Kirkendall, Nescospeck, -----	6.73
5324	Bowker's Corn and Wheat Guano, ----	J. D. Landon, Cloe, -----	8.32
5661	Bowker's Corn and Wheat Guano, ----	A. B. Shoemaker & Son, Tullytown, --	2.40
5535	Bowker's Special Crop Grower, -----	W. B. Kirkendall, Nescospeck, -----	6.90
5660	Stockbridge's Market Garden Manure, --	A. B. Shoemaker & Son, Tullytown, --	3.96
	CENTRAL CHEMICAL CO., HAGERSTOWN, MD.		
5384	Gro-All Empire, -----	N. G. Adams, Paxinos, -----	5.60
5403	Gro-All Excelsior, -----	John Phillips & Sons, Sunbury, -----	6.56
5716	Gro-All Grain and Grass Grower, -----	M. R. Brumbaugh & Son, Martinsburg, --	3.39
5383	Gro-All Planters Mixture, -----	W. G. Adams, Paxinos, -----	6.17
5717	Gro-All Planters Mixture, -----	M. R. Brumbaugh & Son, Martinsburg, --	2.18
5719	Gro-All Super Fish, -----	M. R. Brumbaugh & Son, Martinsburg, --	5.32
	COOPERATIVE G. L. F. EXCHANGE, INC., NEW YORK, N. Y.		
5584	G. L. F. Fertilizer 4-8-10, -----	Corry Milling & Supply Co., Corry, --	3.76
5585	G. L. F. Fertilizer 4-12-4, -----	Corry Milling & Supply Co., Corry, --	4.26
	DUMONT FERTILIZER CO., INC., PHILADELPHIA, PA.		
5398	1-8-5, -----	O. L. Bowersox, Middleburg, -----	7.85
5400	2-8-10, -----	O. L. Bowersox, Middleburg, -----	7.15
	FARMERS FERTILIZER WORKS, ELIZABETHTOWN, PA.		
5730	Farmers Best Yet, -----	B. F. Horting, Newport, -----	2.95
	GRIFFITH & BOYD CO., BALTIMORE, MD.		
5514	Griffith & Boyd Co.'s Nitro Crop Fertilizer, -----	Hoburg Brothers, Sharpsburg, -----	3.30
5617	Griffith & Boyd Co.'s Special Formula, -----	Harmony Cereal Mill, Harmony, -----	8.27
5663	Griffith & Boyd Co.'s Tobacco and Vegetable Grower, -----	W. Lovett Leigh, Tullytown, -----	6.23
	J. & J. GUANO CO., ROANOKE, VA.		
5519	J. & J. Two Fold Guano, -----	J. K. Lawson, Washington, -----	5.20
	M. P. HUBBARD & CO., INC., BALTIMORE, MD.		
5552	Hubbard's Giant Compound, -----	Mackey & Yerkes, Oxford, -----	6.45
5566	Hubbard's Special Potato and Tomato, -----	W. D. Myers, East Berlin, -----	4.77
5543	Hubbard's Special 2-8-5, -----	C. M. Harter Wapwallopen, -----	8.40
5551	Hubbard's Special 2-8-5, -----	Mackey & Yerkes, Oxford, -----	6.25
	THE HUBBARD FERTILIZER COMPANY, BALTIMORE, MD.		
5545	Hubbard's Complete Fertilizer, -----	C. M. Harter, Wapwallopen, -----	6.79
5636	Hubbard's Jersey Truckee, -----	Cook Grain, Feed & Supply Co., Dillsburg, -----	3.80
5632	Hubbard's Money Maker Fertilizer, -----	Cook Grain, Feed & Supply Co., Dillsburg, -----	6.78
5483	Hubbard's Money Maker Fertilizer, -----	H. B. Low & Son, Orangeville, -----	5.42

PLETE FERTILIZERS—Continued.

NITRO- GEN.		Quality of Organic Nitrogen.	PHOSPHORIC ACID.						POTASH.				Selling price per ton at place of selection.	Chemist's number.
Found.	Guaranteed.		Total.		Available.		Insoluble.		Found.	Guaranteed.	Present as Muriate.	Present as Sulphate.		
			Found.	Guaranteed.	Found.	Guaranteed.	Found.	Guaranteed.						
%	%		%	%	%	%	%	%	%	%	%	%	\$	
1.74	1.65	Passed	12.41	12.00	12.07	12.00	0.34	-----	2.07	2.00	2.07	-----	32 00	5353
1.45	1.23	Passed	16.39	17.00	11.61	10.00	4.78	7.00	6.01	5.00	6.01	-----	32 50	5461
1.70	1.65	Passed	8.99	9.00	8.15	8.00	0.84	1.00	4.00	4.00	4.00	-----	25 90	5536
1.66	1.65	Passed	9.89	9.00	8.08	8.00	1.72	1.00	4.12	4.00	4.12	-----	31 10	5324
1.83	1.65	Passed	9.80	9.00	8.76	8.00	1.04	1.00	4.21	4.00	4.21	-----	32 75	5661
1.75	1.65	Passed	8.97	9.00	8.13	8.00	0.84	1.00	10.91	10.00	10.91	-----	31 65	5535
3.38	3.29	Passed	9.16	9.00	8.40	8.00	0.76	1.00	4.46	4.00	4.46	-----	40 00	5660
1.57	1.65	Passed	8.33	8.50	*7.74	8.00	0.59	0.50	10.05	10.00	10.05	-----	35 00	5384
1.55	1.65	Low	9.35	8.50	8.43	8.00	0.92	0.50	*3.78	4.00	3.78	-----	30 25	5403
2.23	1.65	Passed	13.15	12.50	11.82	12.00	1.33	0.50	2.40	2.00	2.40	-----	34 00	5716
0.94	0.82	Low	9.69	8.50	8.91	8.00	0.78	0.50	*5.76	6.00	5.76	-----	29 00	5383
1.03	0.82	Passed	8.64	8.50	7.99	8.00	0.65	0.50	6.84	6.00	6.84	-----	27 50	5717
1.74	1.65	Low	13.36	12.50	*11.46	12.00	1.90	0.50	6.12	6.00	6.12	-----	38 00	5719
3.21	3.29	Passed	8.83	9.00	*7.58	8.00	1.25	1.00	*8.38	10.00	8.38	-----	48 00	5584
3.25	3.29	Passed	12.46	13.00	*11.47	12.00	0.99	1.00	5.60	4.00	5.60	-----	46 00	5585
0.65	0.83	Low	8.38	8.50	*7.10	8.00	1.28	0.50	5.93	5.00	5.93	-----	26 90	5398
1.50	1.65	Passed	8.71	8.50	7.93	8.00	0.78	0.50	10.15	10.00	10.15	-----	34 25	5400
1.74	1.65	Low	9.98	9.00	8.90	8.00	1.08	1.00	10.45	10.00	10.45	-----	30 00	5730
6.53	6.58	Passed	4.54	4.50	4.38	4.00	0.18	0.50	2.18	2.00	2.18	-----	54 00	5514
1.81	1.65	Passed	10.83	11.00	10.63	10.00	0.80	1.00	4.60	4.00	4.60	-----	34 00	5617
2.33	2.47	Low	10.17	9.00	9.67	8.00	9.50	1.00	3.02	3.00	3.02	-----	34 00	5663
2.50	2.00	Passed	7.67	9.00	*7.29	8.00	0.38	1.00	5.44	5.00	5.44	-----	33 00	5519
1.79	1.65	Low	8.47	8.50	8.13	8.00	0.34	0.50	10.10	10.00	10.10	-----	28 50	5552
1.65	1.65	Passed	8.30	7.50	7.58	7.00	0.72	0.50	5.80	5.00	5.80	-----	26 35	5566
1.74	-----	Low	9.13	-----	8.07	8.00	1.06	2.00	5.28	5.00	5.28	-----	30 45	5543
1.85	-----	Low	8.56	-----	8.06	8.00	0.50	2.00	5.31	5.00	5.31	-----	24 50	5551
1.60	1.64	Passed	12.93	13.00	11.91	12.00	1.02	1.00	2.46	2.00	2.46	-----	31 40	5545
1.80	1.64	Passed	8.79	9.00	8.09	8.00	0.70	1.00	10.13	10.00	10.13	-----	29 85	5636
1.87	1.64	Passed	9.98	9.00	8.34	8.00	1.64	1.00	5.13	5.00	5.13	-----	26 15	5638
1.82	1.64	Passed	9.95	9.00	8.23	8.00	1.72	1.00	4.97	5.00	4.97	-----	29 50	5483

*Deficient.

TABLE IV—COM

Chemist's number.	Name of Manufacturer and Brand.	Sample Taken From—	Moisture.
5592	Hubbard's Money Maker Fertilizer, ---	Oil City Milling Co., Oil City, -----	% 4.98
5727	Hubbard's Money Maker Fertilizer, ---	Ed. Stambaugh, Green Park, -----	3.85
	THE JARECKI CHEMICAL CO., (ARMOUR OWNED), SANDUSKY, OHIO.		
5598	Jarecki Fertilizer 3-8-6, -----	J. L. Alcorn, Titnsville, -----	8.00
	LANCASTER BONE FERTILIZER COM- PANY, LANCASTER, PA.		
5496	Conestoga Brand Farmers Favorite, --	Johnson Byer Hardware Co., Rural Valley, -----	4.53
5640	Conestoga Brand Lancaster Peerless, --	Dillsburg Grain & Milling Co., Dills- burg, -----	6.48
	LEBANON FERTILIZER WORKS, LEBANON, PA.		
5434	Levan's Crown Jewel 2-8-5, -----	Solomon & Waltz, Antes Fort, -----	6.32
5437	Levan's Harvest King 2-8-10, -----	Solomon & Waltz, Antes Fort, -----	6.33
	F. E. LORD, ESPY, PA.		
5371	Columbia Potato Special, -----	F. E. Lord, Espy, -----	8.75
5372	Columbia County Spring Special, -----	F. E. Lord, Espy, -----	8.88
	THE MILLER FERTILIZER CO., BALTIMORE, MD.		
5361	Miller's 2-8-5, -----	H. E. Mullen, Christiana, -----	6.58
5468	Miller's Farmers Profit, -----	L. R. Levengood, Pottstown, -----	5.80
5421	Miller's Pimlico, -----	Herman Keebler, Montoursville, -----	3.92
5629	Miller's Pimlico, -----	G. W. Koser, Biglerville, -----	3.50
5363	Miller's Pimlico, -----	H. E. Mullen, Christiana, -----	5.87
5802	Miller's Unexcelled, -----	M. L. Byerly & Co., Embreeville, -----	2.95
5623	Miller's Unexcelled, -----	Geo. Walters & Sons, Butler, -----	4.00
5562	Miller's Wheat and Grass Grower, -----	H. E. Mullen, Christiana, -----	7.65
	G. OBER & SONS COMPANY, BALTI- MORE, MD.		
5442	Ober's Special Compound for Tobacco, -----	Solomon & Waltz, Antes Fort, -----	9.51
5573	Ober's Special Plant Food, -----	John H. Duttera, New Oxford, -----	10.47
5785	Ober's Special Plant Food, -----	Farmers Supply Co., New Castle, -----	6.00
5498	Ober's Special Plant Food, -----	Wm. Gates Estate, Kittanning, -----	10.15
5432	Ober's Special Plant Food, -----	Solomon & Waltz, Antes Fort, -----	11.40
5431	Ober's Super Wheat and Grain Mixture, -----	Solomon & Waltz, Antes Fort, -----	9.63
5430	Ober's Superior Potato and Vegetable, Grower, -----	Solomon & Waltz, Antes Fort, -----	8.30
	OXFORD PACKING WORKS, OXFORD, PA.		
5796	O. P. W. No. 1, -----	Harry J. Miller, Collamer, -----	5.35
	OYLER & SPANGLER FERTILIZER WORKS, INC., GETTYSBURG, PA.		
5630	O. & S. Excelsior, -----	G. W. Koser, Biglerville, -----	4.95
	PATUXENT GUANO COMPANY, BALTIMORE, MD.		
5561	Patuxent Champion Fertilizer, -----	M. F. Waser, York, -----	4.85
5635	Patuxent Tip Top Fertilizer, -----	Cook Grain Feed & Supply Co., Dills- burg, -----	4.37
	PIEDMONT MT. AIRY GUANO CO., BALTIMORE, MD.		
5648	Piedmont High Grade Vegetable Grower, -----	William Johnson, Sinking Springs, --	6.90
5782	Piedmont Perfection Guano, -----	John G. Simpson, Huntingdon, -----	2.97

PLETE FERTILIZERS—Continued.

NITRO- GEN.		Quality of Organic Nitrogen.	PHOSPHORIC ACID.						POTASH.				Selling price per ton at place of selection.	Chemist's number.
Found.	Guaranteed.		Total.		Available.		Insoluble.		Found.	Guaranteed.	Present as Muriate.	Present as Sulphate.		
			Found.	Guaranteed.	Found.	Guaranteed.	Found.	Guaranteed.						
%	%		%	%	%	%	%	%	%	%	%	%	\$	
1.68	1.64	Low	9.69	9.00	8.59	8.00	1.10	1.00	5.66	5.00	5.66	-----	33 25	5592
1.91	1.64	Passed	9.15	9.00	8.41	8.00	0.74	1.00	5.50	5.00	5.50	-----	26 22	5727
2.52	2.47	Passed	9.18	8.50	8.30	8.00	0.84	0.50	5.98	6.00	5.98	-----	40 00	5598
1.08	0.82	Passed	9.61	10.00	*8.60	9.00	1.01	1.00	5.37	5.00	5.37	-----	29 00	5496
1.72	1.60	Passed	10.63	11.00	*9.77	10.00	0.86	1.00	5.68	4.00	5.68	-----	29 90	5640
1.62	1.65	Low	8.15	9.00	8.03	8.00	0.12	1.00	5.47	5.00	5.47	-----	30 00	5434
1.55	1.65	Passed	8.19	9.00	8.11	8.00	0.08	1.00	10.69	10.00	10.69	-----	34 00	5437
1.70	1.64	Passed	10.55	8.50	9.67	8.00	0.88	0.50	9.87	10.00	9.87	-----	30 00	5371
1.79	1.64	Passed	11.98	10.50	10.94	10.00	1.04	0.50	2.63	2.00	2.63	-----	24 75	5372
1.69	1.65	Low	9.39	8.50	8.05	8.00	1.34	0.50	5.07	5.00	5.07	-----	25 50	5361
1.73	1.65	Passed	11.68	10.50	9.83	10.00	1.85	0.50	4.41	4.00	4.41	-----	33 00	5168
1.58	1.65	Passed	9.67	8.50	8.51	8.00	0.56	0.50	*9.55	10.00	9.55	-----	35 00	5421
1.73	1.65	Passed	9.11	8.50	8.19	8.00	0.92	0.50	10.18	10.00	10.18	-----	33 00	5629
1.60	1.65	Passed	8.73	8.50	8.13	8.00	0.66	0.50	*9.26	10.00	9.26	-----	29 00	5363
1.70	1.65	Passed	12.46	10.50	10.50	10.00	1.96	0.50	2.31	2.00	2.31	-----	31 00	5802
1.86	1.65	Low	11.20	10.50	*9.68	10.00	1.52	0.50	3.08	2.00	3.08	-----	40 00	5623
1.71	1.65	Passed	13.02	12.50	12.00	12.00	1.02	0.50	1.96	2.00	1.96	-----	26 50	5362
2.40	2.47	Low	9.43	9.00	8.69	8.00	0.74	1.00	3.51	3.00	3.51	-----	32 50	5442
1.65	1.65	Passed	9.90	10.00	9.40	9.00	0.50	1.00	5.86	5.00	5.86	-----	27 55	5573
1.69	1.65	Low	10.75	10.00	9.67	9.00	1.08	1.00	5.74	5.00	5.74	-----	34 00	5785
1.68	1.65	Low	10.04	10.00	9.26	9.00	0.78	1.00	5.24	5.00	5.24	-----	36 00	5498
1.69	1.65	Low	9.94	10.00	9.04	9.00	0.90	1.00	5.79	5.00	5.79	-----	30 50	5432
2.45	2.47	Low	12.69	13.00	12.13	12.00	0.56	1.00	3.70	3.00	3.70	-----	35 50	5431
1.54	1.65	Passed	9.32	9.00	8.94	8.00	0.38	1.00	10.01	10.00	10.01	-----	34 00	5430
1.79	1.64	Low	9.90	9.00	8.10	8.00	1.80	1.00	6.24	5.00	6.24	-----	28 00	5796
1.61	1.65	Passed	8.60	8.50	7.86	8.00	0.74	0.50	5.14	5.00	5.14	-----	29 50	5630
*1.28	1.65	Passed	9.38	9.00	8.06	8.00	1.32	1.00	*3.67	5.00	3.67	-----	31 00	5561
1.78	1.65	Passed	9.24	9.00	8.16	8.00	1.08	1.00	9.98	10.00	9.98	-----	30 85	5635
1.81	1.65	Passed	8.85	9.00	*7.51	8.00	1.34	1.00	10.16	10.00	10.16	-----	30 00	5648
1.83	1.65	Low	8.87	9.00	*7.47	8.00	1.40	1.00	7.42	5.00	7.42	-----	30 00	5782

*Deficient.

TABLE IV—COM

Chemist's number.	Name of Manufacturer and Brand.	Sample Taken From—	Moisture.
	READING BONE FERTILIZER CO., READING, PA.		
5680	Reading All Crop Special, -----	S. C. Kriebel, West Point, -----	% 4.73
	F. S. ROYSTER GUANO COMPANY, BALTIMORE, MD.		
5539	Royster's Banner Guano, -----	C. M. Harter, Wapwallopen, -----	7.55
5407	Royster's Bully Guano, -----	Geo. S. Chalfont, Milton, -----	7.24
5470	Royster's Bully Guano, -----	John P. Fisher, Douglassville, -----	5.24
5505	Royster's Bully Guano, -----	Parnassus Hardware Co., Parnassus, -----	6.35
5355	Royster's Vim Guano, -----	Great Valley Mills Co., Exton, -----	8.92
	M. L. SHOEMAKER & CO., INC., PHILADELPHIA, PA.		
5478	Shoemakers Swift Sure Super Phos- phate For General Use 3-8-3, -----	A. H. Weaver, Norristown, -----	7.32
	SWACKS FERTILIZER WORKS, DU- BOIS, PA.		
5605	Swacks Wheat Fertilizer, -----	J. H. McWherter, Mercer, -----	5.33
	SWIFT & COMPANY, BALTIMORE, MD.		
5686	Swift's Champion Wheat and Corn Grower, 2-12-2, -----	Clearfield County Cooperative Associa- tion, Inc., Clearfield, -----	4.78
5676	Swift's Four Eight Ten 4-8-10, -----	Adam Schmehl, North Wales, -----	3.25
5673	Swift's Golden Grain Grower 2-8-5, -----	Wm. Hobensack & Son, Ivyland, -----	2.81
5411	Swift's Golden Grain Grower 2-8-5, -----	The Mifflinburg Farmers Exchange, Inc., Mifflinburg, -----	4.60
5690	Swift's Long Island Potato Manure 4-8-4, -----	Clearfield County Cooperative Associa- tion, Inc., Clearfield, -----	4.82
5677	Swift's Planters Favorite 3-8-3, -----	Adam Schmehl, North Wales, -----	3.46
5587	Swift's Red Steer 2-8-10, -----	Union Coal & Supply Co., Union City, -----	6.13
5413	Swift's Red Steer 2-16-2, -----	The Mifflinburg Farmers Exchange, Inc., Mifflinburg, -----	9.81
5678	Swift's Special Wheat and Corn Grower 2-10-4, -----	Adam Schmehl, North Wales, -----	4.19
	I. P. THOMAS & SON CO., PHILA- DELPHIA, PA.		
5671	Champion Guano 2-10-4, -----	R. E. Mason, Hatboro, -----	7.45
5624	Fish Mixture 1-8-5, -----	E. J. Houck & Son, Bangor, -----	6.65
5743	Fish Mixture 1-8-5, -----	L. S. Kinzer, Mifflintown, -----	6.48
5672	Fish Mixture 1-8-5, -----	R. E. Mason, Hatboro, -----	5.05
	TRENTON BONE FERTILIZER COM- PANY, TRENTON, N. J.		
5058	Corn and Grain, -----	L. A. Howells, Morrisville, -----	4.86
	F. W. TUNNELL & CO., INC., PHILA- DELPHIA, PA.		
5346	F. W. Tunnell & Co.'s Fish Manure with Potash, -----	Edw. Brinton & Sons, West Chester, -----	9.37
5345	F. W. Tunnell & Co.'s 1-8-6 Special, -----	Edw. Brinton & Sons, West Chester, -----	8.08
5645	F. W. Tunnell & Co.'s Veribest Cereal Manure, -----	Clarence Wilson, Kimberton, -----	8.26
	YORK CHEMICAL WORKS, YORK, PA.		
5343	Grain Special, -----	Harry Pyle & Sons, Chadds Ford Junction, -----	12.65
		Average, -----	6.24

PLETE FERTILIZERS—Continued.

NITRO- GEN.		Quality of Organic Nitrogen.	PHOSPHORIC ACID.						POTASH.				Selling price per ton at place of selection.	Chemist's number.
Found.	Guaranteed.		Total.		Available.		Insoluble.		Found.	Guaranteed.	Present as Muriate.	Present as Sulphate.		
			Found.	Guaranteed.	Found.	Guaranteed.	Found.	Guaranteed.						
% 2.21	% 1.65	Passed	% 10.35	% 11.00	% *8.63	% 10.00	% 1.72	% 1.00	% 8.62	% 6.00	% 8.62	% -----	\$ 32 45	
1.94	1.65	Low	8.65	8.50	8.05	8.00	0.60	0.50	10.47	10.00	10.47	-----	34 15	5539
1.70	1.65	Passed	9.15	8.50	8.33	8.00	0.82	0.50	5.21	5.00	5.21	-----	30 25	5407
1.94	1.65	Passed	9.20	8.50	7.92	8.00	1.28	0.50	5.25	5.00	5.25	-----	26 00	5470
1.71	1.65	Passed	9.40	8.50	8.34	8.00	1.06	0.50	5.03	5.00	5.03	-----	35 50	5505
1.77	1.65	Passed	13.16	12.50	12.14	12.00	1.02	0.50	2.23	2.00	2.23	-----	34 00	5355
2.27	2.46	Passed	11.30	10.00	9.74	8.00	1.56	2.00	4.14	3.00	4.14	-----	36 00	5478
1.74	1.65	Passed	10.06	9.00	8.60	8.00	1.46	1.00	3.94	4.00	3.94	-----	34.75	5695
1.75	1.65	Passed	12.55	12.00	12.03	12.00	0.52	-----	2.12	2.00	2.12	-----	-----	5686
3.13	3.29	Passed	8.29	8.00	*7.73	8.00	0.56	-----	10.59	10.00	10.59	-----	-----	5676
1.84	1.65	Passed	8.87	8.00	8.03	8.00	0.84	-----	5.33	5.00	5.33	-----	30 00	5673
1.65	1.65	Passed	8.16	8.00	*7.66	8.00	0.50	-----	5.26	5.00	5.26	-----	27 75	5411
*3.06	3.29	Passed	8.64	8.00	7.98	8.00	0.66	-----	4.01	4.00	4.01	-----	-----	5690
*2.25	2.47	Passed	8.53	8.00	8.09	8.00	0.44	-----	3.36	3.00	3.36	-----	-----	5677
1.77	1.65	Passed	8.90	8.00	8.22	8.00	0.68	-----	10.40	10.00	10.40	-----	41 00	5587
1.68	1.65	Passed	16.17	16.00	16.02	16.00	0.15	-----	2.13	2.00	2.13	-----	31 00	5413
1.69	1.65	Passed	10.18	10.00	*9.76	10.00	0.42	-----	4.50	4.00	4.50	-----	-----	5678
1.79	1.65	Passed	12.21	10.50	10.19	10.00	2.02	0.50	4.34	4.00	4.34	-----	31 00	5671
1.05	0.82	Passed	9.50	8.50	8.26	8.00	1.24	0.50	5.40	5.00	5.40	-----	26 50	5624
0.89	0.82	Low	9.43	8.50	*7.77	8.00	1.66	0.50	5.16	5.00	5.16	-----	25 00	5743
1.33	0.82	Passed	9.50	8.50	*7.70	8.00	1.80	0.50	5.05	5.00	5.05	-----	28 00	5672
1.67	1.64	Passed	12.34	11.00	10.42	10.00	1.92	1.00	2.29	2.00	2.29	-----	32 00	5658
1.88	1.64	Passed	11.03	11.00	9.84	10.00	1.19	1.00	7.20	6.00	7.20	-----	37.00	5346
0.87	0.82	Low	9.07	9.00	8.01	8.00	1.06	1.00	6.53	6.00	6.53	-----	31 00	5345
1.76	1.64	Low	9.21	9.00	7.95	8.00	1.26	1.00	4.62	4.00	4.62	-----	34 00	5645
1.75	1.64	Passed	13.06	12.00	12.40	12.00	0.66	-----	2.54	2.00	2.54	-----	30 00	5343
1.89	-----	-----	10.18	-----	9.13	-----	1.05	-----	5.67	-----	-----	-----	32 62	-----

*Deficient.

TABLE IV—COM

Chemist's number.	Name of Manufacturer and Brand.	Sample Taken From—	Moisture.
LOW GRADE FORMULAS. THE AMERICAN AGRICULTURAL CHEMICAL CO., NEW YORK, N. Y.			
5368	Aeme Fish Mixture, -----	Jones Eavenson, Christiana, -----	7.55
5333	Bradley's B. D. Guano, -----	J. A. McKelvey, Blairsville, -----	8.31
5615	Bradley's New Method Fertilizer, -----	Geo. Ifft & Sons, Evans City, -----	6.16
5334	Bradley's Niagra Phosphate, -----	J. A. McKelvey, Blairsville, -----	5.07
5699	Canton Chemical Baker's Special Wheat, Corn and Grass Mixture, -----	F. P. Waite, Tyrone, -----	5.35
5390	Canton Chemical Baker's Special Wheat, Corn and Grass Mixture, -----	W. B. Winey & Son, Middleburg, -----	8.46
5424	E. Frank Coe's Western New Yorker, -----	Geo. A. Konkle, Montoursville, -----	10.84
5712	Complete Compound, -----	H. C. Berrits' Sons, Somerset, -----	3.45
5349	Complete Compound, -----	Edw. Brinton & Sons, West Chester, -----	8.06
5459	Josiah Cope's Try Me Fertilizer, -----	Bunting Brothers, Oxford, -----	6.95
5754	Josiah Cope's Wheat and Grass Special, Josiah Cope's Wheat and Grass Special, -----	Bedford County Cooperative Association, Inc., Everett, -----	5.77
5369	Josiah Cope's Wheat and Grass Special, Crescent Complete Manure, -----	Jones Eavenson, Christiana, -----	6.07
5515	Crocker's Complete Manure, -----	Sharpsburg Hardware Co., Sharpsburg, -----	7.77
5558	Crocker's General Crop Fertilizer, -----	E. D. Everts Hardware Co., Warren, -----	5.90
5600	Crocker's Universal Grain Grower, -----	Jos. Froelich, Mountville, -----	6.50
		H. C. Hutchinson Milling Co., Hyde- town, -----	6.70
5711	Detrick's Paragon Ammoniated Phos- phate and Potash, -----	H. C. Berrits' Sons, Somerset, -----	2.50
5718	W. S. Farmer & Co.'s Harvest Queen, -----	M. R. Brumbaugh & Son, Martins- burg, -----	4.21
5755	W. S. Farmer & Co.'s Potash Guano, -----	Bedford County Cooperative Association, Inc., Everett, -----	4.85
5418	Lister's G. Brand, -----	R. Foster & Son, Mifflinburg, -----	9.32
5577	Lister's G. Brand, -----	W. H. Stock, New Oxford, -----	4.32
5417	Lister's Golden Sheaf, -----	R. Foster & Son, Mifflinburg, -----	8.35
5575	Lister's Special Crop Producer, -----	W. H. Stock, New Oxford, -----	7.46
5895	Lister's Squirrel Brand Fertilizer, -----	Wallace M. Russell, Northbrook, -----	8.91
5501	Lister's Success Fertilizer, -----	R. J. Toepfer, Tarentum, -----	6.21
5747	Pollock's Bulls Eye Guano, -----	John Shirey, Lewistown, -----	3.28
5696	Pollock's Crop Invigorator, -----	J. O. Reed, Phillipsburg, -----	1.45
5593	Royal Potash Mixture, -----	Parnassus Hardware Co., Parnassus, -----	5.47
5752	Schaal-Sheldon Farmers' Favorite, -----	James Jackson, Everett, -----	4.96
5789	Susquehanna Ammoniated Phosphate, -----	H. P. Passmore & Brother, Oxford, -----	4.15
5410	Tygert's Victor Crop Grower, -----	Wolfe & Huffman, Watontown, -----	8.30
5778	Wheeler's Royal Wheat Grower, -----	Clay Park, Three Springs, -----	7.88
5475	Wooldridge's Triangle Brand, -----	Solomon DeTurke, Boyertown, -----	6.35
5788	Wooldridge's Triumph Brand Phosphate, -----	P. G. Evans, Kelton, -----	6.15
AMERICAN FERTILIZING COMPANY, BALTIMORE, MD.			
5465	American Eagle Crop Grower, -----	N. B. Keim & Son, Langhorne, -----	8.35
5451	American Fish and Potash Compound, -----	Jones Eavenson, Christiana, -----	5.56
5714	American Grain and Grass Grower, -----	John G. Emmert, Somerset, -----	6.60
5450	American Grain and Grass Special, -----	Jones Eavenson, Christiana, -----	6.75
ARMOUR FERTILIZER WORKS, BAL- TIMORE, MD.			
5532	Armour's Ammoniated Phosphate 1-7-1, -----	W. H. Smith, Rural Valley, -----	5.20
5330	Armour's Crop Grower Fertilizer, -----	Frank Douglass, Indiana, -----	7.07
5530	Armour's Crop Grower Fertilizer, -----	W. H. Smith, Rural Valley, -----	4.39
5394	Armour's Crop Grower Fertilizer, -----	Steininger Brothers, Middleburg, -----	5.05
5740	Armour's Farmers Choice Fertilizer, -----	I. B. Seerist, Millerstown, -----	3.89
5331	Armour's Grain Grower, -----	Frank Douglass, Indiana, -----	9.02
5454	Armour's Grain Grower, -----	J. C. Walker & Sons Co., Gap, -----	5.10
5416	Armour's Royal Ammoniated, -----	Luther Bogenniff, Mifflinburg, -----	7.03

PLETE FERTILIZERS—Continued.

NITRO-GEN.		Quality of Organic Nitrogen.	PHOSPHORIC ACID.						POTASH.				Selling price per ton at place of selection.	Chemist's number.
Found.	Guaranteed.		Total.		Available.		Insoluble.		Found.	Guaranteed.	Present as Muriate.	Present as Sulphate.		
			Found.	Guaranteed.	Found.	Guaranteed.	Found.	Guaranteed.						
%	%		%	%	%	%	%	%	%	%	%	%	\$	
0.61	0.41	Passed	8.29	8.00	7.13	7.00	1.16	1.00	2.82	3.00	2.82	-----	22 00	5368
0.83	0.82	Passed	9.12	9.00	7.95	8.00	1.17	1.00	3.92	4.00	3.92	-----	33 00	5333
1.03	0.82	Passed	9.77	9.00	9.01	8.00	0.76	1.00	2.19	2.00	2.19	-----	30 50	5615
0.84	0.82	Passed	8.00	8.00	7.04	7.00	0.96	1.00	1.16	1.00	1.16	-----	27 00	5334
0.99	0.82	Passed	9.72	10.00	*8.62	9.00	1.10	1.00	2.00	2.00	2.00	-----	26 50	5699
0.89	0.82	Low	9.64	10.00	*8.67	9.00	0.97	1.00	2.14	2.00	2.14	-----	25 50	5390
0.85	0.82	Low	9.04	9.00	8.06	8.00	0.98	1.00	4.34	4.00	4.34	-----	28 00	5424
1.00	0.82	Passed	9.02	9.00	7.97	8.00	1.05	1.00	4.94	4.00	4.94	-----	28 00	5712
0.89	0.82	Low	8.75	9.00	*7.79	8.00	0.96	1.00	4.07	4.00	4.07	-----	29 00	5349
1.78	1.65	Passed	9.25	9.00	8.19	8.00	1.06	1.00	2.80	2.00	2.80	-----	24 50	5459
0.93	0.82	Passed	9.06	9.00	*7.70	8.00	1.36	1.00	1.12	1.00	1.12	-----	26 00	5754
1.00	0.82	Low	8.95	9.00	*7.51	8.00	1.44	1.00	1.19	1.00	1.19	-----	22 00	5369
1.80	1.65	Passed	9.22	9.00	8.10	8.00	1.12	1.00	3.73	3.00	3.73	-----	40 00	5515
0.95	0.82	Low	8.81	9.00	7.83	8.00	0.98	1.00	*3.78	4.00	3.78	-----	50 00	5580
0.92	0.82	Passed	7.86	8.00	6.92	7.00	0.94	1.00	1.26	1.00	1.26	-----	-----	5558
1.12	0.82	Passed	8.89	9.00	7.93	8.00	0.96	1.00	3.29	2.00	3.29	-----	29 50	5600
1.00	0.82	Passed	8.07	8.00	7.11	7.00	0.96	1.00	1.16	1.00	1.16	-----	25 00	5711
1.02	0.82	Passed	10.46	10.09	9.36	9.00	1.10	1.00	3.02	3.00	3.02	-----	27 50	5718
0.88	0.82	Passed	9.06	9.00	7.92	8.00	1.14	1.00	4.26	4.00	4.26	-----	28 00	5755
0.93	0.82	Low	8.98	9.00	8.22	8.00	0.76	1.00	3.97	4.00	3.97	-----	26 00	5418
1.09	0.82	Passed	9.11	9.00	8.09	8.00	1.02	1.00	4.33	4.00	4.33	-----	24 00	5577
0.85	0.82	Low	8.65	9.00	*7.75	8.00	0.90	1.00	1.19	1.00	1.19	-----	24 30	5417
0.88	0.82	Passed	7.63	8.00	6.83	7.00	0.80	1.00	1.23	1.00	1.23	-----	21 50	5575
0.86	0.82	Low	9.17	9.00	8.13	8.00	1.04	1.00	2.04	2.00	2.04	-----	23 00	5575
2.00	1.65	Passed	9.71	9.00	8.55	8.00	1.16	1.00	2.00	2.00	2.00	-----	32 00	5501
1.68	1.65	Passed	9.32	9.00	8.08	8.00	1.24	1.00	2.14	2.00	2.14	-----	26 50	5747
0.96	0.82	Low	9.61	9.00	8.53	8.00	1.08	1.00	4.63	4.00	4.63	-----	32 00	5696
0.96	0.82	Passed	8.94	9.00	8.02	8.00	0.92	1.00	*1.21	2.00	1.21	-----	30 00	5503
1.00	0.82	Passed	9.24	9.00	8.14	8.00	1.10	1.00	2.12	2.00	2.12	-----	-----	5752
1.77	1.65	Passed	9.44	9.00	8.16	8.00	1.28	1.00	2.29	2.00	2.29	-----	24 00	5789
0.76	0.82	Low	8.34	9.00	*7.42	8.00	0.92	1.00	4.13	4.00	4.13	-----	26 00	5410
0.94	0.82	Low	9.45	9.00	8.33	8.00	1.12	1.00	1.93	2.00	1.93	-----	25 00	5778
0.99	0.82	Passed	9.15	9.00	8.05	8.00	1.10	1.00	4.01	4.00	4.01	-----	24 00	5475
1.70	1.65	Passed	8.88	9.00	7.81	8.00	1.07	1.00	3.26	3.00	3.26	-----	27 00	5788
1.80	1.65	Passed	9.40	9.00	8.40	8.00	1.00	1.00	2.37	2.00	2.37	-----	28 00	5465
1.58	1.65	Passed	10.35	9.00	7.88	8.00	2.47	1.00	3.25	3.00	3.25	-----	26 00	5451
1.13	0.82	Passed	11.80	10.00	9.34	9.00	2.46	1.00	3.35	3.00	3.35	-----	25 00	5714
0.78	0.41	Passed	10.26	9.00	8.44	8.00	1.82	1.00	1.69	1.00	1.69	-----	20 00	5450
0.85	0.82	Low	7.17	7.50	*6.65	7.00	0.52	0.50	1.28	1.00	1.28	-----	28 00	5532
0.93	0.82	Low	9.31	8.50	8.45	8.00	0.86	0.50	2.14	2.00	2.14	-----	28 50	5330
1.00	0.82	Low	8.73	8.50	8.17	8.00	0.56	0.50	2.24	2.00	2.24	-----	32 00	5530
0.86	0.82	Low	8.67	8.50	7.93	8.00	0.74	0.50	2.00	2.00	2.00	-----	24 00	5394
0.95	0.82	Low	9.96	9.50	9.00	9.00	0.96	0.50	3.16	3.00	3.16	-----	25 00	5740
1.61	1.65	Low	9.21	8.50	8.11	8.00	1.10	0.50	2.08	2.00	2.08	-----	-----	5331
1.78	1.65	Low	8.15	8.50	*7.28	8.00	0.87	0.50	2.26	2.00	2.26	-----	25 00	5454
0.88	0.82	Low	8.93	8.50	8.01	8.00	0.92	0.50	3.94	4.00	3.94	-----	23 50	5416

*Deficient.

TABLE IV—COM

Chemist's number.	Name of Manufacturer and Brand.	Sample Taken From—	Molsture.
5681	Armour's Royal Ammoniated, -----	Kneer & Mattern, West Point, -----	% 5.86
5332	Armour's Wheat, Corn and Oats Special, -----	Frank Douglass, Indiana, -----	5.38
5692	Armour's Wheat, Corn and Oats Special, -----	Hibner-Hoover Hardware Co., DuBois, -----	4.77
BAUGH & SONS COMPANY, PHILA- DELPHIA, PA.			
5682	Baugh's Animal Base and Potash Com- pound, -----	Routh & Swartzle Co., Clearfield, ----	3.76
5706	Baugh's Economical Crop Producer, ---	A. F. Stutzman & Son, Johnstown, --	3.62
5703	Baugh's Excelsior Guano, -----	Edwards Hardware Co., Ebensburg, --	3.22
5337	Baugh's Excelsior Guano, -----	Thos. K. George, Homer City, -----	7.88
5604	Baugh's Excelsior Guano, -----	J. M. Hoagland & Co., Sharon, -----	5.23
5485	Baugh's Excelsior Guano, -----	H. B. Low & Son, Orangeville, -----	3.51
5769	Baugh's Excelsior Guano, -----	W. B. Thompson & Son, Waynesboro, --	1.44
5381	Baugh's Fish Bone Guano, -----	Edward Wargo, Danville, -----	9.33
5647	Baugh's Fish Mixture, -----	John W. Root, Kimberton, -----	6.05
5683	Baugh's General Crop Grower, -----	Routh & Swartzle Co., Clearfield, ----	4.56
5378	Baugh's Ground Crop Grower, -----	Edward Wargo, Danville, -----	6.48
5704	Baugh's Wheat Fertilizer for Wheat and Grass, -----	Edwards Hardware Co., Ebensburg, --	5.08
5352	Baugh's Wheat Fertilizer for Wheat and Grass, -----	Fisher & Nolan, Malvern, -----	8.87
5339	Baugh's Wheat Fertilizer for Wheat and Grass, -----	Thos. K. George, Homer City, -----	6.74
5382	Baugh's Wheat Fertilizer for Wheat and Grass, -----	Edward Wargo, Danville, -----	6.65
BOWKER FERTILIZER COMPANY, SUBSIDIARY OF THE AMERICAN AGRICULTURAL CHEMICAL CO., NEW YORK, N. Y.			
5318	Bowker's Corn and Grain Grower, -----	J. D. Landon, Cloe, -----	8.18
5659	Bowker's Square Brand Farm and Gar- den Phosphate, -----	A. B. Shoemaker & Son, Tullytown, --	4.92
5616	Bowker's Sure Crop Phosphate, -----	Harmony Cereal Mill, Harmony, -----	6.85
5537	Bowker's Sure Crop Phosphate, -----	W. B. Kirkendall, Nescopeck, -----	3.88
CENTRAL CHEMICAL CO., HAGERS- TOWN, MD.			
5751	Gro-All Crown Jewel, -----	Francis Baker, Everett, -----	4.81
5632	Gro-All Crown Jewel, -----	G. W. Koser, Biglerville, -----	6.76
5401	Gro-All Crown Jewel, -----	John Phillips & Sons, Sunbury, -----	7.00
5385	Gro-All Fish and Potash Compound, --	N. G. Adams, Paxinos, -----	6.50
5633	Gro-All Golden Sheaf, -----	G. W. Koser, Biglerville, -----	6.37
5402	Gro-All Golden Sheaf, -----	John Phillips & Sons, Sunbury, -----	6.48
5749	Gro-All Valley Mixture, -----	Francis Baker, Everett, -----	3.96
5656	Gro-All Valley Mixture, -----	Wm. C. Ball, Media, -----	3.08
THE COE-MORTIMER COMPANY, SUBSIDIARY OF THE AMERICAN AGRICULTURAL CHEMICAL CO., NEW YORK, N. Y.			
5526	E. Frank Coe's Penna. No. 1 Grain Special, -----	Weaver & Weightman, Fayette City, --	9.37
THE JAS. G. DOWNWARD CO., COATESVILLE, PA.			
5651	Ammoniated Phosphate, -----	A. W. Eberly, Reinholds, -----	3.18
5650	Royal Phosphate, -----	A. W. Eberly, Reinholds, -----	4.10
DUMONT FERTILIZER CO., INC., PHILADELPHIA, PA.			
5448	Dumont's Half Seven and Three, ----	E. S. Artley, Pennsdale, -----	9.80

PLETE FERTILIZERS—Continued.

COMPLETE FERTILIZERS COMPARED.														
NITRO-GEN.		Quality of Organic Nitrogen.	PHOSPHORIC ACID.						POTASH.				Selling price per ton at place of selection.	Chemist's number.
Found.	Guaranteed.		Total.		Available.		Insoluble.		Found.	Guaranteed.	Present as Muriate.	Present as Sulphate.		
			Found.	Guaranteed.	Found.	Guaranteed.	Found.	Guaranteed.						
%	%	Passed	%	%	%	%	%	%	%	%	%	%	\$	
1.00	0.82	Passed	8.30	8.50	*7.56	8.00	0.74	0.50	4.46	4.00	4.46	-----	29 00	5681
1.01	0.82	Passed	8.04	7.50	7.16	7.00	0.88	0.50	1.13	1.00	1.13	-----	27 50	5332
0.96	0.82	Low	8.65	7.50	7.57	7.00	1.08	0.50	1.40	1.00	1.40	-----	27 00	5692
1.93	1.65	Low	8.60	8.00	*7.60	8.00	1.00	-----	2.98	2.00	2.98	-----	35 00	5682
1.10	0.82	Low	9.27	8.00	8.19	8.00	1.08	-----	2.38	2.00	2.38	-----	28 00	5706
0.93	0.82	Low	9.11	8.00	7.97	8.00	1.14	-----	4.82	4.00	4.82	-----	30 40	5703
1.00	0.82	Low	8.67	8.00	*7.57	8.00	1.10	-----	4.52	4.00	4.52	-----	27 00	5337
1.02	0.82	Low	8.97	8.00	8.05	8.00	0.92	-----	4.37	4.00	4.37	-----	30 00	5604
1.02	0.82	Low	9.03	8.00	8.02	8.00	1.01	-----	4.10	4.00	4.10	-----	25 50	5485
1.20	0.82	Passed	10.10	8.00	8.60	8.00	1.50	-----	4.40	4.00	4.40	-----	25 50	5769
1.80	1.65	Passed	11.16	10.00	10.50	10.00	0.66	-----	1.15	1.00	1.15	-----	29 00	5381
1.69	1.65	Low	9.03	8.00	8.13	8.00	0.90	-----	2.56	2.00	2.56	-----	30 00	5617
1.18	0.82	Low	9.12	8.00	8.06	8.00	1.06	-----	1.39	1.00	1.39	-----	29 00	5683
1.00	0.82	Low	9.13	8.00	8.21	8.00	0.92	-----	1.22	1.00	1.22	-----	25 00	5378
1.94	1.65	Passed	9.31	8.00	8.23	8.00	1.08	-----	2.36	2.00	2.36	-----	32 00	5704
1.74	1.65	Passed	9.06	8.00	8.14	8.00	0.92	-----	2.13	2.00	2.13	-----	29 00	5352
1.78	1.65	Low	8.66	8.00	*7.75	8.00	0.91	-----	2.56	2.00	2.56	-----	30 00	5339
1.90	1.65	Low	9.31	8.00	8.51	8.00	0.80	-----	2.33	2.00	2.33	-----	28 00	5382
0.93	0.82	Passed	9.22	9.00	7.89	8.00	1.33	1.00	4.21	4.00	4.21	-----	27 47	5318
1.85	1.65	Passed	9.22	9.00	8.32	8.00	0.90	1.00	2.34	2.00	2.34	-----	30 50	5659
0.89	0.82	Passed	9.48	9.00	7.99	8.00	1.49	1.00	2.01	2.00	2.01	-----	26 00	5616
0.92	0.82	Low	8.92	9.00	8.06	8.00	0.83	1.00	2.53	2.00	2.53	-----	22 50	5537
1.03	0.82	Passed	10.13	9.50	8.91	9.00	1.22	0.50	2.84	3.00	2.84	-----	27 00	5751
0.78	0.82	Low	9.72	9.50	9.18	9.00	0.54	0.50	3.05	3.00	3.05	-----	26 50	5632
0.90	0.82	Low	9.34	9.50	*8.56	9.00	0.78	0.50	*2.66	3.00	2.66	-----	27 50	5401
0.97	1.03	Low	9.13	8.50	7.89	3.00	1.24	0.50	2.17	2.00	2.17	-----	27 00	5385
0.82	0.82	Low	8.97	8.50	8.17	8.00	0.80	0.50	1.49	1.00	1.49	-----	23 50	5633
1.00	0.82	Low	8.62	8.50	*7.66	8.00	0.96	0.50	1.35	1.00	1.35	-----	24 50	5402
1.90	1.65	Low	8.97	8.50	8.29	8.00	0.68	0.50	2.38	2.00	2.38	-----	28 00	5749
1.62	1.65	Passed	9.02	8.50	8.04	8.00	0.98	0.50	2.04	2.00	2.04	-----	30 00	5656
0.95	0.82	Passed	12.54	11.00	11.06	10.00	1.48	1.00	1.21	1.00	1.21	-----	32 00	5526
0.75	0.82	Passed	9.55	8.00	8.27	7.00	1.28	1.00	3.92	3.00	3.92	-----	23 00	5651
0.68	0.82	Passed	8.95	8.00	7.59	7.00	1.36	1.00	7.21	5.00	7.21	-----	25 00	5650
0.63	0.42	Passed	8.51	7.50	7.07	7.00	1.44	0.50	3.34	3.00	3.34	-----	23 65	5448

*Deficient.

TABLE IV—COM

Chemist's number.	Name of Manufacturer and Brand.	Sample Taken From—	Moisture.
	EUREKA CHEMICAL COMPANY, BALTIMORE, MD.		
5758	Eureka Fish and Potash, -----	W. H. Nesbit, McConnellsburg, -----	4.50
	FARMERS FERTILIZER WORKS, ELIZABETHTOWN, PA.		
5737	Farmers Favorite, -----	I. B. Seerist, Millerstown, -----	4.47
5739	Special Compound, -----	I. B. Seerist, Millerstown, -----	5.01
	JOSEPH R. GAWTHROP, KENNETT SQUARE, PA.		
5550	Ammoniated Special Phosphate for Corn, Oats and Wheat, -----	Joseph R. Gawthrop, Kennett Square, -----	7.63
5549	Champion Fertilizer for Wheat and Grass, -----	Joseph R. Gawthrop, Kennett Square, -----	5.90
	GRIFFITH & BOYD CO., BALTIMORE, MD.		
5588	Griffith & Boyd Co.'s Economizer, -----	E. A. Slagle, Paxinos, -----	5.32
5422	Griffith & Boyd Co.'s Fish and Potash Guano, -----	J. E. Callahan & Son, Montoursville, -----	6.82
5662	Griffith & Boyd Co.'s Fish, Blood and Potash, -----	W. Lovett Leight, Tullytown, -----	5.72
5387	Griffith & Boyd Co.'s Fish, Blood and Potash, -----	E. A. Slagle, Paxinos, -----	6.97
5314	Griffith & Boyd Co.'s Peerless Fertilizer, -----	Mahoning Hardware & Implement Co., Punxsutawney, -----	6.33
5423	Griffith & Boyd Co.'s Royal Potash Guano, -----	J. E. Callahan & Sons, Montoursville, -----	7.27
	J. & J. GUANO CO., ROANOKE, VA.		
5517	Planters Delight 1-8-3, -----	J. K. Lawson, Washington, -----	3.80
	S. M. HESS & BROTHER, INC., SUBSIDIARY OF THE AMERICAN AGRICULTURAL CHEMICAL CO., NEW YORK, N. Y.		
5547	Ammoniated Superphosphate, -----	C. M. Harter, Wapwallopen, -----	6.65
5548	Keystone Phosphate, -----	C. M. Harter, Wapwallopen, -----	5.58
5546	Wheat, Corn and Grass Manure, -----	C. M. Harter, Wapwallopen, -----	6.76
	M. P. HUBBARD & CO., INC., BALTIMORE, MD.		
5550	Hubbard's Acme, -----	Willis Gill, Atglen, -----	11.14
5467	Hubbard's Celebrated Phosphate for General Use, -----	R. C. Fairlamb & Son, Brandywine Summit, -----	6.95
5541	Hubbard's Celebrated Phosphate for General Use, -----	C. M. Harter, Wapwallopen, -----	6.80
5553	Hubbard's Fish Phosphate and Potash, -----	Mackey & Yerkes, Oxford, -----	6.55
5542	Hubbard's Harvest King, -----	C. M. Harter, Wapwallopen, -----	5.96
5567	Hubbard's Old Economy Best for The Money, -----	W. D. Myers East Berlin, -----	4.99
	THE HUBBARD FERTILIZER COMPANY, BALTIMORE, MD.		
5603	Hubbard's Climax Phosphate, -----	J. L. Alcorn, Titusville, -----	7.52
5637	Hubbard's Farmers I. X. L., -----	Cook Grain Feed & Supply Co., Dillsburg, -----	3.90
5736	Hubbard's 1-8-2 Fertilizer, -----	A. H. Ush Sons, Millerstown, -----	3.36
5608	Hubbard's 1-8-4 Fertilizer, -----	Coulter & Coulter, Grove City, -----	7.60
5482	Hubbard's 1-8-4 Fertilizer, -----	H. B. Low & Son, Orangeville, -----	5.90
5591	Hubbard's 1-8-4 Fertilizer, -----	Oil City Milling Co., Oil City, -----	5.62
5794	Hubbard's 1-8-4 Fertilizer, -----	Edw. W. Rupert, Oxford, -----	2.55
5544	Hubbard's 1-9-3 Fertilizer, -----	C. M. Harter, Wapwallopen, -----	6.39

PLETE FERTILIZERS—Continued.

NITRO- GEN.		Quality of Organic Nitrogen.	PHOSPHORIC ACID.						POTASH.				Selling price per ton at place of selection.	Chemist's number.
Found.	Guaranteed.		Total.		Available.		Insoluble.		Found.	Guaranteed.	Present as Muriate.	Present as Sulphate.		
			Found.	Guaranteed.	Found.	Guaranteed.	Found.	Guaranteed.						
% 0.60	% 0.41	Low	% 10.10	% 8.50	% 8.33	% 8.00	% 1.72	% 0.50	% 2.35	% 2.00	% 2.35	%	\$ 22 00	5758
1.00	0.82	Low	9.62	9.00	8.78	8.00	0.84	1.00	4.14	4.00	4.14	-----	25 00	5737
1.00	0.82	Low	9.87	9.00	8.99	8.00	0.88	1.00	2.15	2.00	2.15	-----	24 00	5739
1.65	1.00	Low	8.62	7.00	8.06	6.00	0.56	1.00	2.76	1.00	2.76	-----	28 00	5550
1.27	1.20	Low	8.33	7.00	6.51	5.00	1.82	2.00	2.05	1.00	2.05	-----	31 00	5549
0.50	0.41	Low	7.45	7.00	6.65	6.00	0.80	1.00	2.06	1.00	2.06	-----	22 00	5388
1.50	1.44	Low	7.95	8.00	7.03	7.00	0.92	1.00	3.65	3.00	3.65	-----	28 00	5422
1.63	1.44	Low	8.13	8.00	*6.74	7.00	1.39	1.00	2.30	2.00	2.30	-----	30 00	5662
1.63	1.44	Passed	8.06	8.00	*6.68	7.00	1.38	1.00	2.49	2.00	2.49	-----	32 00	5387
0.71	0.41	Passed	8.90	9.00	8.16	8.00	0.74	1.00	2.25	2.00	2.25	-----	28 00	5314
1.04	0.82	Passed	7.83	9.00	*7.27	8.00	0.56	1.00	4.63	4.00	4.63	-----	28 00	5423
0.92	1.00	Passed	7.96	9.00	*7.33	8.00	0.58	1.00	3.12	3.00	3.12	-----	29 50	5517
1.77	1.65	Passed	8.94	9.00	8.08	8.00	0.86	1.00	2.38	2.00	2.38	-----	28 20	5547
0.89	0.82	Low	8.43	9.00	*7.80	8.00	0.63	1.00	1.33	1.00	1.33	-----	24 05	5548
0.82	0.82	Low	9.40	9.00	8.60	8.00	0.80	1.00	2.28	2.00	2.28	-----	24 75	5546
0.82	0.82	Low	8.53	8.00	*7.80	8.00	0.73	-----	4.61	4.00	4.61	-----	22 00	5350
1.50	1.65	Passed	8.98	8.50	8.26	8.00	0.72	0.50	2.53	2.00	2.53	-----	25 00	5467
1.61	1.65	Low	8.67	8.50	8.10	8.00	0.57	0.50	2.20	2.00	2.20	-----	28 20	5541
0.87	0.82	Low	7.65	7.50	7.07	7.00	0.58	0.50	3.27	2.00	3.27	-----	21 00	5553
1.00	0.82	Low	9.25	9.50	*8.80	9.00	0.45	0.50	3.78	3.00	3.78	-----	26 00	5542
0.51	0.41	Low	8.52	8.50	8.04	8.00	0.48	0.50	2.30	2.00	2.30	-----	19 35	5567
1.08	0.82	Passed	9.86	8.00	8.28	7.00	1.58	1.00	4.63	4.00	4.63	-----	33 00	5603
1.83	1.64	Passed	9.29	9.00	8.57	8.00	0.72	1.00	2.53	2.00	2.53	-----	24 60	5637
0.86	0.82	Passed	9.07	9.00	8.39	8.00	0.68	1.00	2.48	2.00	2.48	-----	22 50	5736
1.00	0.82	Passed	9.87	9.00	8.47	8.00	1.40	1.00	4.59	4.00	4.59	-----	32 00	5608
1.10	0.82	Low	9.48	9.00	8.56	8.00	0.92	1.00	4.40	4.00	4.40	-----	25 00	5482
0.89	0.82	Low	9.91	9.00	8.97	8.00	0.94	1.00	4.05	4.00	4.05	-----	28 50	5591
0.93	0.82	Passed	9.34	9.00	8.08	8.00	1.26	1.00	4.51	4.00	4.51	-----	26 00	5794
1.04	0.82	Low	10.00	10.00	9.20	9.00	0.80	1.00	3.22	3.00	3.22	-----	26 00	5544

*Deficient.

TABLE IV—COM

Chemist's number.	Name of Manufacturer and Brand.	Sample Taken From--	Moisture.
5793	Hubbard's 1-9-3 Fertilizer, -----	Edw. W. Rupert, Oxford, -----	% 4.84
5594	INTERNATIONAL AGRICULTURAL CORPORATION, BUFFALO, N. Y. Buffalo Tip Top, -----	Chas. W. King, Cooperstown, -----	4.40
5457	LANCASTER BONE FERTILIZER COMPANY, LANCASTER, PA. Conestoga Brand General Crop, -----	E. B. Fritz & Sons Co., Quarryville, Dillsburg Grain & Milling Co., Dills- burg.	8.00 5.59
5639	Conestoga Brand Grain Special, -----	Dillsburg Grain & Milling Co., Dills- burg.	5.65
5641	Conestoga Brand Special Guano, -----		
5668	LEBANON FERTILIZER WORKS, LEBANON, PA. Levan's Farmers Favorite 1-8-2, -----	John A. Bayer, Hamburg, -----	5.45
5436	Levan's Farmers Favorite 1-8-2, -----	Solomon & Waltz, Antes Fort, -----	6.55
5436	Levan's Lebanon Special 2-8-2, -----	John A. Bayer, Hamburg, -----	5.90
5435	Levan's Superior Fish Mixture 1-8-4, -----	Solomon & Waltz, Antes Fort, -----	4.79
5670	THE MILLER FERTILIZER CO., BALTIMORE, MD. Miller's Ammoniated, -----	S. Carl Garner, Hatboro, -----	4.65
5621	Miller's Ammoniated, -----	Geo. Walters & Sons, Butler, -----	3.85
5364	Miller's Club Brand, -----	H. E. Mullen, Christiana, -----	5.76
5446	Miller's Club Brand, -----	H. L. Ort, Pennsdale, -----	4.93
5803	Miller's Grain Grower, -----	M. L. Byerly & Co., Embreeville, -----	4.85
5469	Miller's Grain Grower, -----	L. R. Levengood, Pottstown, -----	6.65
5622	Miller's Harvest Queen, -----	Geo. Walters & Sons, Butler, -----	3.49
5751	G. OBER & SONS COMPANY, BALTIMORE, MD. Ober's Farmers Mixture, -----	Harry E. Huston, Saltillo, -----	6.75
5618	Ober's Golden Top Wheat and Corn Grower, -----	Thompson & Glenn, Butler, -----	8.95
5619	Ober's Soluble Ammoniated Super Phos- phate of Lime, -----	Geo. Walters & Sons, Butler, -----	6.40
5797	OXFORD PACKING WORKS, OXFORD, PA. O. P. W. No. 2, -----	Harry J. Miller, Collamer, -----	5.15
5570	OYLER & SPANGLER FERTILIZER WORKS, INC., GETTYSBURG, PA. O. & S. Crop Grower, -----	M. J. Shaeffer, Hanover, -----	6.71
5571	O. & S. Gettysburg, -----	M. J. Shaeffer, Hanover, -----	6.40
5569	O. & S. Golden Sheaf, -----	M. J. Shaeffer, Hanover, -----	8.40
5627	PATAPSCO GUANO COMPANY, SUB- SIDIARY OF THE AMERICAN AGRI- CULTURAL CHEMICAL CO., BALTIMORE, MD. Big Chief Brand with Potash, -----	E. C. Thomas, Gettysburg, -----	6.36
5560	Coon Brand Guano, -----	Wm. Gates Estate, Kittanning, -----	6.65
5732	Coon Brand Guano, -----	B. F. Horting, Newport, -----	7.09
5628	Coon Brand Guano, -----	E. C. Thomas, Gettysburg, -----	5.98
5499	General Crop Producer, -----	Wm. Gates Estate, Kittanning, -----	5.00
5741	Patapasco Money Maker, -----	Sausman Brothers, Thompsonstown, -----	6.15
5578	Sea Gull Guano, -----	E. C. Thomas, Gettysburg, -----	8.41
5772	PATUXENT GUANO COMPANY, BAL- TIMORE, MD. Beaver Brand Guano, -----	Culbertson Elevator Co., Culbertson, -----	4.89
5562	Beaver Brand Guano, -----	M. F. Waser, York, -----	4.65
5735	Patuxent Fish Guano, -----	A. H. Ulsh Sons, Millerstown, -----	6.54

PLETE FERTILIZERS—Continued.

NITRO- GEN.		Quality of Organic Nitrogen.	PHOSPHORIC ACID						POTASH.				Selling price per ton at place of selection.	Chemist's number.
Found.	Guaranteed.		Total.		Available.		Insoluble.		Found.	Guaranteed.	Present as Muriate.	Present as Sulphate.		
			Found.	Guaranteed.	Found.	Guaranteed.	Found.	Guaranteed.						
% 0.91	% 0.82	Passed	% 10.47	% 10.00	% 9.03	% 9.00	% 1.44	% 1.00	% 3.30	% 3.00	% 3.30	%	\$ 26 00	5793
0.95	0.80	Low	8.34	9.00	*7.51	8.00	0.83	1.00	4.33	4.00	4.33	-----	30 00	5594
1.68	1.60	Passed	10.92	9.00	9.02	8.00	1.90	1.00	2.47	2.00	2.47	-----	22 95	5457
0.91	0.82	Low	9.55	9.00	8.69	8.00	0.86	1.00	2.70	2.00	2.70	-----	22 00	5639
0.88	0.82	Passed	10.03	10.00	9.37	9.00	0.66	1.00	3.12	3.00	3.12	-----	22 00	5641
0.84	0.82	Low	8.65	9.00	8.31	8.00	0.34	1.00	2.27	2.00	2.27	-----	24 00	5668
0.85	0.82	Low	8.44	9.00	8.30	8.00	0.14	1.00	2.46	2.00	2.46	-----	24 00	5436
1.61	1.65	Passed	8.21	9.00	7.97	8.00	0.24	1.00	2.94	2.00	2.94	-----	28 00	5669
1.00	0.82	Low	3.15	9.00	7.97	8.00	0.18	1.00	4.43	4.00	4.43	-----	25 50	5435
1.60	1.65	Passed	9.32	8.50	8.20	8.00	1.12	0.50	2.22	2.00	2.22	-----	32 50	5670
1.72	1.65	Passed	10.33	8.50	8.75	8.00	1.58	0.50	2.24	2.00	2.24	-----	32 00	5621
0.51	0.41	Low	8.58	8.50	8.02	8.00	0.56	0.50	2.41	2.00	2.41	-----	19 00	5364
0.55	0.41	Low	9.13	8.50	8.43	8.00	0.70	0.50	2.26	2.00	2.26	-----	21 50	5446
1.00	0.82	Passed	9.36	8.50	8.29	8.00	1.07	0.50	4.29	4.00	4.29	-----	28 00	5803
1.03	0.82	Passed	10.22	8.50	9.03	8.00	1.14	0.50	4.17	4.00	4.17	-----	28 00	5469
1.13	0.82	Passed	10.49	9.50	9.41	9.00	1.08	0.50	3.64	3.00	3.64	-----	31 00	5622
0.96	0.82	Low	10.96	10.00	9.98	9.00	0.98	1.00	2.34	2.00	2.34	-----	28 00	5781
0.95	0.82	Low	10.24	10.00	9.52	9.00	0.72	1.00	3.41	3.00	3.41	-----	34 00	5618
1.76	1.65	Low	10.42	9.00	9.38	8.00	1.04	1.00	3.12	2.00	2.30	0.82	32 00	5619
1.87	1.44	Low	10.66	10.00	9.24	9.00	1.42	1.00	2.52	2.00	2.52	-----	26 00	5797
0.96	0.82	Low	9.72	9.50	9.06	9.00	0.66	0.50	3.42	3.00	3.42	-----	24 00	5570
1.52	1.65	Low	9.80	8.50	8.46	8.00	1.34	0.50	2.00	2.00	2.00	-----	26 00	5571
0.73	0.82	Passed	9.02	8.50	8.24	8.00	0.78	0.50	1.43	1.00	1.43	-----	22 00	5569
1.15	0.82	Passed	9.75	10.00	*8.30	9.00	1.45	1.00	3.59	3.00	3.59	-----	26 00	5627
1.00	0.82	Passed	9.29	10.00	*8.47	9.00	0.82	1.00	3.28	2.00	3.28	-----	32 50	5500
0.94	0.82	Passed	9.85	10.00	*8.40	9.00	1.45	1.00	2.02	2.00	2.02	-----	22 75	5732
1.23	0.82	Passed	10.08	10.00	*8.46	9.00	1.62	1.00	2.19	2.00	2.19	-----	25 00	5628
0.88	0.82	Passed	8.06	8.00	7.08	7.00	0.98	1.00	1.09	1.00	1.09	-----	26 00	5499
0.95	0.82	Passed	9.34	9.00	8.06	8.00	1.28	1.00	2.02	2.00	2.02	-----	5741	
1.01	0.82	Low	8.97	9.00	*7.61	8.00	1.36	1.00	1.16	1.00	1.16	-----	23 00	5578
0.80	0.82	Passed	10.88	10.00	9.64	9.00	1.24	1.00	3.12	3.00	3.12	-----	23 50	5772
0.85	0.82	Low	10.68	10.00	9.06	9.00	1.62	1.00	3.00	3.00	3.00	-----	26 75	5562
1.00	0.82	Passed	9.64	9.00	8.04	8.00	1.60	1.00	2.04	2.00	2.04	-----	22 50	5735

*Deficient.

TABLE IV—COM

Chemist's number.	Name of Manufacturer and Brand.	Sample Taken From—	Moisture.
5560	Patuxent Grain and Clover Producer,---	M. F. Waser, York, -----	% 4.40
	PIEDMONT MT. AIRY GUANO CO., BALTIMORE, MD.		
5649	Piedmont Farmers Favorite, -----	William Johnson, Sinking Springs, ----	6.65
5654	Piedmont Harvest Queen, -----	John B. Bucher, Ephrata, -----	5.78
5386	Piedmont Insula Fish Guano, -----	E. A. Slagle, Paxinos, -----	7.43
5653	Piedmont Standard, -----	John B. Bucher, Ephrata, -----	7.96
	PITTSBURGH PROVISION & PACK- ING CO., PITTSBURGH, PA.		
5511	Corn and Potato, -----	Pittsburgh Provision & Packing Co., Pittsburgh.	8.21
5510	Keystone Fertilizer, -----	Pittsburg Provision & Packing Co., Pittsburgh.	6.65
	RASIN-MONUMENTAL CO., SUBSIDI- ARY OF THE VIRGINIA-CAROLINA CHEMICAL CO., BALTIMORE, MD.		
5479	Rasin's Capital Crop Compound, -----	H. B. Low & Son, Orangeville, -----	8.57
5745	Rasin's National Crop Compound, -----	W. W. Book, Port Royal, -----	5.18
5667	Rasin's National Crop Compound, -----	Clayton Kimmel, Orwigsburg, -----	4.35
5744	Rasin's Royal Fish and Potash Mixture,-----	W. W. Book, Port Royal, -----	4.90
5665	Rasin's Royal Fish and Potash Mixture,-----	Clayton Kimmel, Orwigsburg, -----	4.26
5487	Rasin's Royal Fish and Potash Mixture,-----	H. B. Low & Son, Orangeville, -----	5.50
5666	Rasin's Wheat Corn and Oats Mixture,-----	Clayton Kimmel, Orwigsburg, -----	4.42
5445	Rasin's Wheat Corn and Oats Mixture,-----	H. L. Ort, Pennsdale, -----	8.10
	F. S. ROYSTER GUANO COMPANY, BALTIMORE, MD.		
5611	Royster's Cuckoo Guano, -----	Kings Planning Mill & Supply Co., Grove City.	1.97
5565	Royster's Cuckoo Guano, -----	Lauer Brothers, Thomasville, -----	5.00
5540	Royster's Dreadnought Guano, -----	C. M. Harter, Wapwallopen, -----	6.32
5504	Royster's Dreadnought Guano, -----	Parnassus Hardware Co., Parnassus,--	5.40
5405	Royster's Economy Guano, -----	Geo. S. Chalfont, Milton, -----	7.15
5564	Royster's Economy Guano, -----	Lauer Brothers, Thomasville, -----	5.36
5596	Royster's Fish, Flesh and Fowl, -----	J. L. Aleorn, Titusville, -----	5.68
5356	Royster's Fish, Flesh and Fowl, -----	Great Valley Mills Co., Exton, -----	6.79
5597	Royster's Rational Guano, -----	J. L. Aleorn, Titusville, -----	6.62
5358	Royster's Rational Guano, -----	Willis Gill, Atglen, -----	9.05
5538	Royster's Rational Guano, -----	C. M. Harter, Wapwallopen, -----	6.57
5406	Royster's Seeding Down Guano, -----	Geo. S. Chalfont, Milton, -----	7.20
5357	Royster's Seeding Down Guano, -----	Great Valley Mills Co., Exton, -----	8.73
5508	Royster's Seeding Down Guano, -----	G. W. Walton Hardware Co., Beaver,--	7.00
	THE SCOTT FERTILIZER COMPANY, INC., ELKTON, MD.		
5554	Scott's Pennsylvania Potato Grower, --	Edw. W. Rupert, Oxford, -----	4.85
5555	Scott's Sure Growth Super Phosphate,--	Edw. W. Rupert, Oxford, -----	3.74
	THE STANDARD CHEMICAL WORKS, INC., WOMELSDORF, PA.		
5728	Farmers Choice, -----	B. F. Horting, Newport, -----	2.87
	SWACKS FERTILIZER WORKS, DU- BOIS, PA.		
5322	Swaek's General Crop Grower, -----	Brookville Auto Co., Brookville, -----	6.11
5323	Swaek's Grain Grower Fertilizer, -----	Brookville Auto Co., Brookville, -----	4.97
	SWIFT & COMPANY, BALTIMORE, MD.		
5688	Swift's Red Steer 2-8-2, -----	Clearfield County Cooperative Associa- tion, Inc., Clearfield.	2.57
5679	Swift's Red Steer 2-8-2, -----	Adam Schmehl, North Wales, -----	2.89

PLETE FERTILIZERS—Continued.

NITRO- GEN.		Quality of Organic Nitrogen.	PHOSPHORIC ACID.						POTASH.				Selling price per ton at place of selection.	Chemist's number.
Found.	Guaranteed.		Total.		Available.		Insoluble.		Found.	Guaranteed.	Present as Muriate.	Present as Sulphate.		
			Found.	Guaranteed.	Found.	Guaranteed.	Found.	Guaranteed.						
% 0.92	% 0.82	Low	% 9.43	% 9.00	% 8.09	% 8.00	% 1.34	% 1.00	% 4.10	% 4.00	% 4.10	% -----	\$ 26 75	5560
1.08	0.82	Low	9.98	9.00	8.04	8.00	1.94	1.00	4.42	4.00	4.42	-----	-----	5649
1.09	0.82	Passed	9.85	9.00	8.13	8.00	1.72	1.00	2.79	2.00	2.79	-----	22 00	5654
0.92	0.41	Low	8.06	7.50	7.38	7.00	0.68	0.50	3.32	2.00	3.32	-----	25 00	5386
1.85	1.65	Low	8.92	9.00	7.76	8.00	1.16	1.00	4.12	3.00	4.12	-----	23 50	5653
1.96	1.43	Passed	10.06	11.00	7.81	9.00	2.25	2.00	3.32	3.00	3.32	-----	36 00	5511
1.93	1.43	Low	11.91	11.00	9.09	9.00	2.82	2.00	1.69	1.00	1.69	-----	33 00	5510
1.03	0.82	Passed	11.66	10.00	9.30	9.00	2.36	1.00	3.41	3.00	3.41	-----	25 00	5479
0.96	0.82	Passed	10.24	9.00	8.54	8.00	1.70	1.00	4.11	4.00	4.11	-----	-----	5745
0.96	0.82	Low	9.67	9.00	8.17	8.00	1.50	1.00	4.33	4.00	4.33	-----	26 00	5667
1.60	1.65	Passed	10.22	9.00	8.14	8.00	2.08	1.00	*2.78	3.00	2.78	-----	-----	5744
1.88	1.65	Passed	9.91	9.00	8.07	8.00	1.84	1.00	3.18	3.00	3.18	-----	27 50	5665
1.84	1.65	Passed	9.94	9.00	8.06	8.00	1.88	1.00	3.19	3.00	3.19	-----	28 00	5487
0.50	0.41	Passed	9.26	9.00	*7.47	8.00	1.79	1.00	2.33	2.00	2.33	-----	23 00	5666
0.54	0.41	Passed	10.00	9.00	8.20	8.00	1.80	1.00	2.07	2.00	2.07	-----	21 50	5445
0.95	0.82	Passed	9.22	8.50	8.76	8.00	0.46	0.50	1.23	1.00	1.23	-----	28 00	5611
1.03	0.82	Passed	9.17	8.50	*7.50	8.00	1.67	0.50	1.39	1.00	1.39	-----	20 00	5565
1.62	1.65	Passed	9.55	8.50	9.11	8.00	0.44	0.50	2.34	2.00	2.34	-----	28 20	5540
1.80	1.65	Passed	9.40	8.50	8.56	8.00	0.84	0.50	2.16	2.00	2.16	-----	33 50	5504
1.04	0.82	Passed	9.41	8.50	8.43	8.00	0.98	0.50	2.47	2.00	2.47	-----	24 50	5405
0.75	0.82	Low	9.38	8.50	8.33	8.00	1.05	0.50	2.41	2.00	2.41	-----	22 00	5564
1.90	1.65	Passed	9.57	8.50	8.43	8.00	1.14	0.50	3.43	3.00	3.43	-----	34 00	5596
1.71	1.65	Low	9.32	8.50	8.42	8.00	0.90	0.50	*2.79	3.00	2.79	-----	30 00	5356
0.98	0.82	Passed	9.63	8.50	8.29	8.00	1.34	0.50	4.23	4.00	4.23	-----	35 00	5597
1.00	0.82	Passed	9.66	8.50	8.58	8.00	1.08	0.50	4.36	4.00	4.36	-----	22 00	5358
1.11	0.82	Passed	9.11	8.50	8.05	8.00	1.06	0.50	4.14	4.00	4.14	-----	26 00	5538
1.00	0.82	Passed	10.06	9.50	9.30	9.00	0.76	0.50	3.26	3.00	3.26	-----	26 05	5406
0.98	0.82	Low	10.09	9.50	9.33	9.00	0.76	0.50	3.22	3.00	3.22	-----	26 00	5357
0.95	0.82	Passed	10.83	9.50	9.47	9.00	1.36	0.50	3.10	3.00	3.10	-----	35 00	5508
0.89	0.82	Low	9.53	-----	8.57	8.00	0.96	1.00	2.27	2.00	2.27	-----	24 00	5554
1.62	1.65	Passed	8.92	8.00	8.20	8.00	0.72	-----	2.97	3.00	2.97	-----	27 00	5555
1.05	0.82	Passed	10.10	10.00	8.94	9.00	1.16	1.00	3.25	3.00	3.25	-----	23 25	5728
0.90	0.82	Low	9.18	9.00	8.62	8.00	0.56	1.00	4.56	4.00	4.56	-----	26 00	5322
1.01	0.82	Low	7.39	8.00	*6.53	7.00	0.86	1.00	1.33	1.00	1.33	-----	23 00	5323
1.70	1.65	Passed	8.50	8.00	7.96	8.00	0.54	-----	2.07	2.00	2.07	-----	-----	5688
1.63	1.65	Passed	8.56	8.00	8.08	8.00	0.48	-----	2.23	2.00	2.23	-----	-----	5679

*Deficient.

TABLE IV—COM

Chemist's number.	Name of Manufacturer and Brand.	Samples Taken From—	Moisture.
5428	Swift's Reliable Grain Fertilizer 1-8-1, --	S. G. Updegraff & Son, Williamsport,--	% 6.48
5687	Swift's Special Wheat Grower 1-8-4, ----	Clearfield County Cooperative Association, Inc., Clearfield.	4.74
5414	Swift's Special Wheat Grower 1-8-4, ----	The Mifflinburg Farmers Exchange, Inc., Mifflinburg.	5.90
5590	Swift's Super-Phosphate, -----	W. P. Rouse & Son, North East, ----	3.15
	I. P. THOMAS & SON COMPANY, PHILADELPHIA, PA.		
5625	Superior Super-Phosphate 1-8-1, -----	E. J. Houck & Son, Bangor, -----	6.26
	F. W. TUNNELL & CO., INC., PHILADELPHIA, PA.		
5464	Tunnell's Fall Crop Grower, -----	Henry W. Scatterthwaite, Woodburne,--	7.42
	VIRGINIA-CAROLINA CHEMICAL CO. (OF DELAWARE), NEW YORK, N. Y.		
5610	V-C Challenge Brand, -----	Coulter & Coulter, Grove City, -----	8.75
5609	V-C Fish and Potash Mixture, -----	Coulter & Coulter, Grove City, -----	5.96
5606	V-C Marvel Brand, -----	J. H. McWherter, Mercer, -----	7.50
	YORK CHEMICAL WORKS, YORK, PA.		
5759	One-Eight-One, -----	Enos H. Horst, Chambersburg, -----	5.19
5395	One-Eight-One, -----	Steininger Brothers, Middleburg, -----	8.20
5397	One-Eight and Two, -----	Steininger Brothers, Middleburg, -----	8.35
5342	Plow Brand, -----	Harry Pyle & Sons, Chadds Ford Junction.	6.71
5761	Standard Potash, -----	Enos H. Horst, Chambersburg, -----	3.11
5396	Standard Potash, -----	Steininger Brothers, Middleburg, -----	7.83
		Average, -----	5.98
		Total Average, -----	6.08

PLETE FERTILIZERS—Concluded.

FERTILIZERS														
NITRO- GEN.		Quality of Organic Nitrogen.	PHOSPHORIC ACID.						POTASH.				Selling price per ton at place of selection.	Chemist's number.
Found.	Guaranteed.		Total.		Available.		Insoluble.		Found.	Guaranteed.	Present as Muriate.	Present as Sulphate.		
			Found,	Guaranteed.	Found,	Guaranteed.	Found.	Guaranteed.						
%	%		%	%	%	%	%	%	%	%	%	%	\$	
0.90	0.82	Passed	8.04	8.00	7.92	8.00	0.12	-----	1.23	1.00	1.23	-----	28 00	5428
0.90	0.82	Passed	8.11	8.00	7.95	8.00	0.16	-----	4.38	4.00	4.38	-----	-----	5687
0.85	0.82	Low	8.11	8.00	7.96	8.00	0.15	-----	4.14	4.00	4.14	-----	23 50	5414
1.68	1.65	Passed	10.00	8.00	8.03	8.00	1.92	-----	2.28	2.00	2.28	-----	31 85	5590
1.16	0.82	Passed	9.53	8.50	8.59	8.00	0.94	0.50	1.53	1.00	1.53	-----	23 50	5625
1.07	0.82	Low	9.35	9.00	8.07	8.00	1.28	1.00	2.62	2.00	2.62	-----	26 80	5464
0.97	0.82	Passed	11.72	9.00	9.26	8.00	2.46	1.00	3.25	3.00	3.25	-----	32 50	5610
1.67	1.65	Passed	10.20	9.00	*7.54	8.00	2.66	1.00	3.41	3.00	3.41	-----	36 00	5609
0.75	0.82	Passed	10.18	9.00	*7.46	8.00	2.72	1.00	4.60	4.00	4.60	-----	31 00	5606
0.93	0.82	Low	7.88	8.00	*7.78	8.00	0.10	-----	1.20	1.00	1.20	-----	22 50	5759
0.82	0.82	Low	8.27	8.00	8.05	8.00	0.22	-----	1.01	1.00	1.01	-----	23 00	5395
0.89	0.82	Low	8.23	8.00	7.99	8.00	0.24	-----	2.03	2.00	2.03	-----	24 00	5397
1.47	1.64	Passed	8.71	8.00	*7.80	8.00	0.91	-----	2.43	2.00	2.43	-----	27 00	5342
0.85	0.82	Low	9.06	8.00	8.74	8.00	0.32	-----	4.56	4.00	4.56	-----	25 00	5761
0.92	0.82	Low	8.78	8.00	8.50	8.00	0.28	-----	4.06	4.00	4.06	-----	26 00	5396
1.14	-----	-----	9.27	-----	8.21	-----	1.06	-----	2.84	-----	-----	-----	\$26 92	-----
1.44	-----	-----	9.63	-----	8.57	-----	1.06	-----	3.97	-----	-----	-----	\$29 15	-----

*Deficient.

Table V.—NITROGEN AND PHOS

Including Dissolved Bones

Chemist's number.	Name of Manufacturer and Brand.	Sample Taken From—
	HIGH GRADE FORMULAS.	
5790	THE AMERICAN AGRICULTURAL CHEMICAL CO., NEW YORK, N. Y. Dissolved Animal Bone, -----	H. P. Passmore & Brother, Oxford, ----
5729	STANDARD CHEMICAL WORKS, INC., WOMELSDORF, PA. Royal Fish Guano, -----	B. F. Horting, Newport, ----- Average, -----
	LOW GRADE FORMULAS.	
5804	THE AMERICAN AGRICULTURAL CHEMICAL CO., NEW YORK, N. Y. Animal Base Special, -----	Wallace M. Russell, Northbrook, -----
5492	GRIFFITH & BOYD CO., BALTIMORE, MD. Griffith & Boyd Co.'s Fish and Blood Mixture, -----	Dayton Milling Co., Dayton, -----
5783	PIEDMONT MT. AIRY GUANO CO., BALTIMORE, MD. Piedmont Special Crop Grower, -----	John G. Simpson, Huntingdon, -----
5455	M. L. SHOEMAKER & CO., INC., PHILADELPHIA, PA. S. S. S. 23-10-0, -----	J. C. Walker & Sons Co., Gap, ----- Average, ----- Total average, -----

PHORIC ACID FERTILIZERS.

and other like Products.

and other fine products.										
Moisture.	NITROGEN.		PHOSPHORIC ACID.						Selling price per ton at place of selection.	Chemist's number.
	Found.	Guaranteed.	Total.		Available.		Insoluble.			
			Found.	Guaranteed.	Found.	Guaranteed.	Found.	Guaranteed.		
%	%	%	%	%	%	%	%	%	\$	
2.27	2.21	2.06	14.67	14.00	12.35	12.00	2.32	2.00	35 00	5790
3.89	1.24	1.23	15.23	15.00	*13.66	14.00	1.57	1.00	25 60	5729
3.08	1.73	-----	14.95	-----	13.01	-----	1.94	-----	\$30 30	-----
3.97	1.38	1.23	17.96	19.00	11.94	10.00	6.02	9.00	33 00	5804
2.25	1.50	1.44	8.97	8.00	8.01	7.00	0.96	1.00	26 00	5492
2.45	0.91	0.82	11.41	11.00	10.05	10.00	1.36	1.00	25 00	5783
5.39	2.42	2.26	17.41	17.00	11.51	10.00	5.90	7.00	35 00	5455
3.51	1.55	-----	13.94	-----	10.38	-----	3.56	-----	\$29 75	-----
3.37	1.61	-----	14.27	-----	11.25	-----	3.02	-----	\$29 93	-----

*Deficient.

TABLE VI.—GROUND

Furnishing Nitrogen

Chemist's number.	Name of Manufacturer and Brand.		Sample Taken From—	
	THE AMERICAN AGRICULTURAL CHEMICAL CO., NEW YORK, N. Y.			
5581	Fine Ground Bone, -----		E. D. Everts Hardware Co., Warren, --	
5698	Fine Ground Bone, -----		J. O. Reed, Philipsburg, -----	
	ARMOUR FERTILIZER WORKS, BALTIMORE, MD.			
5329	Armour's Big Crop Bone Meal, -----		Frank Douglass, Indiana, -----	
5452	Armour's Big Crop Raw Bone Meal, -----		J. C. Walker & Sons Co., Gap, -----	
	ASSOCIATED CHEMICAL CO., HAGERSTOWN, MD.			
5657	Fine Bone Meal, -----		Wm. C. Ball, Media, -----	
5582	Fine Bone Meal, -----		L. A. Carlson, Warren, -----	
	BAUGH & SONS COMPANY, PHILADELPHIA, PA.			
5335	Baugh's 3 & 50 Bone Meal, -----		Thos. K. George, Homer City, -----	
5351	Baugh's 4½ & 40 Pure Raw Bone Meal, -----		Fisher & Nolan, Malvern, -----	
5646	Baugh's Raw Bone Meal Warranted Pure, -----		John W. Root, Kimberton, -----	
	JACOB DOLD PACKING CO., BUFFALO, N. Y.			
5377	Dold Quality Bone Meal, -----		F. E. Lord, Espy, -----	
	GRIFFITH & BOYD CO., BALTIMORE, MD.			
5664	Griffith & Boyd Co.'s Pure Fine Ground Bone Meal.		W. Lovett Leigh, Tullytown, -----	
	M. P. HUBBARD & CO., INC., BALTIMORE, MD.			
5466	Hubbard's Raw Bone Meal, -----		R. C. Fairlamb & Son, Brandywine Summitt.	
	THE JARECKI CHEMICAL CO., (ARMOUR OWNED), SANDUSKY, OHIO.			
5599	Bone Meal, -----		J. L. Alcorn, Titusville, -----	
	LEBANON FERTILIZER WORKS, LEBANON, PA.			
5440	Levan's Pure Fine Ground Bone Meal 3- 22.89-0.		Solomon & Waltz, Antes Fort, -----	
	MUTUAL RENDERING COMPANY, INC., PHILADELPHIA, PA.			
5675	Murco Animal Products 3.50 Ground Steam Bone.		H. B. Rosenberger, Doylestown, -----	
	PITTSBURGH PROVISION & PACKING CO., PITTSBURGH, PA.			
5509	Bone Meal, -----		Pittsburgh Provision & Packing Co., Pittsburgh.	
	THE SCOTT FERTILIZER COMPANY, ELKTON, MD.			
5556	Scott's Pure Ground Raw Bone, -----		Edw. W. Rupert, Oxford, -----	
	SWIFT & COMPANY, BALTIMORE, MD.			
5307	Swift's Raw Bone Meal Fertilizer, -----		Pomona #3 Exchange, West Chester, --	
	YORK CHEMICAL WORKS, YORK, PA.			
5340	Pure Ground Bone, -----		Harry Pyle & Sons, Chadds Ford Junction.	
			Average, -----	

BONE FERTILIZERS.
and Phosphoric Acid.

Moisture.	CHEMICAL ANALYSIS.				MECHANICAL ANALYSIS.		Selling price per ton at place of selection.	Chemist's number.
	NITROGEN		PHOSPHORIC ACID.		Fine.	Coarse.		
	Found.	Guaranteed.	Found.	Guaranteed.				
%	%	%	%	%	%	%	\$	
3.15	2.47	2.47	23.37	22.88	67	33	50 00	5581
3.04	2.49	2.47	27.96	22.88	68	32	60 00	5698
3.19	2.40	2.47	27.68	22.00	61	39	49 00	5329
4.82	4.20	3.70	22.57	21.50	57	43	45 00	5452
2.88	*2.60	2.87	25.35	23.00	58	42	50 00	5657
2.84	2.82	-----	26.33	-----	45	55	70 00	5582
3.94	2.83	2.47	*21.19	23.00	59	41	50 00	5335
6.97	4.22	3.50	19.54	18.30	55	45	55 00	5351
7.21	4.07	3.70	21.84	21.50	60	40	55 00	5646
3.69	2.82	2.47	23.87	23.00	69	31	40 00	5377
5.97	4.22	3.29	23.20	20.00	49	51	52 50	5664
6.16	3.84	-----	21.02	-----	58	42	52 00	5466
2.85	2.71	2.47	26.85	27.00	65	35	45 00	5599
6.32	2.03	2.47	*5.88	22.89	57	43	48 00	5440
2.47	2.21	2.46	29.09	22.90	68	32	50 00	5675
2.55	4.10	3.70	*19.92	21.00	82	18	40 00	5509
6.70	3.97	3.70	*20.61	21.00	48	52	50 00	5556
7.00	4.18	3.70	*22.22	23.00	49	51	45 00	5807
4.29	*2.05	2.46	28.67	23.00	67	33	47 00	5340
4.52	3.21	-----	24.06	-----	60	40	\$50 18	-----

*Deficient

TABLE VII.—ACIDULATED

Furnishing Phos

Chemist's number.	Name of Manufacturer and Brand.	Sample Taken From—
	HIGH GRADE FORMULAS. THE AMERICAN AGRICULTURAL CHEMICAL CO., NEW YORK, N. Y.	
5313	16% Acid Phosphate, -----	J. J. Dunmire, Marion Center, -----
5392	16% Acid Phosphate, -----	W. B. Winey & Son, Middleburg, -----
5425	E. Frank Coe's 16% Superphosphate, -----	Geo. A. Konkle, Montoursville, -----
5756	Josiah Cope's High Grade Super Phosphate, -----	Bedford County Cooperative Association, Inc., Everett. -----
5458	Josiah Cope's High Grade Super Phosphate, -----	Bunting Brothers, Oxford, -----
5721	W. S. Farmer & Co.'s High Grade Super Phosphate. -----	M. R. Brumbaugh & Son, Martinsburg, -----
5576	Lister's High Grade Acid Phosphate, -----	W. H. Stock, New Oxford, -----
5748	Nassau High Grade Super Phosphate, -----	J. S. Brown & Son, Loysburg, -----
5697	Pollock's High Grade Super-Phosphate, -----	J. O. Reed, Philipsburg, -----
5753	Schaal-Sheldon Soluble Phosphate, -----	James Jackson, Everett, -----
5408	Tygart's 16% Acid Phosphate, -----	Wolfe & Huffman, Watsonstown, -----
5779	Wheeler's High Grade Acid Phosphate, -----	Clay Park, Three Springs, -----
5477	Woolridge's High Grade Acid Phosphate, -----	Solomon DeTurke, Poyertown, -----
5787	Woolridge's High Grade Acid Phosphate, -----	F. G. Evans, Kelton, -----
	AMERICAN FERTILIZING CO., BALTIMORE, MD.	
5715	American High Grade Acid Phosphate, -----	John G. Emmert, Somerset, -----
	ARMOUR FERTILIZER WORKS, BALTIMORE, MD.	
5328	Armour's Big Crop Fertilizers Acid Phos- phate 16%. -----	Frank Douglas, Indiana, -----
5367	Armour's Big Crop Fertilizers Acid Phos- phate 16%. -----	Jones Eavenson, Christiana, -----
5693	Armour's Big Crop Fertilizers Acid Phos- phate 16%. -----	Hilmer-Hoover Hardware Co., DuBois, ..
5393	Armour's Big Crop Fertilizers Acid Phos- phate 16%. -----	Steininger Brothers, Middleburg, -----
	BAUGH & SONS COMPANY, PHILADELPHIA, PA.	
5320	Baugh's 16% Acid Phosphate, -----	McEwen Hardware Co., New Bethlehem, -----
5771	Baugh's 16% Acid Phosphate, -----	W. B. Thompson & Son, Waynesboro, ..
	BOWKER FERTILIZER COMPANY, SUB- SIDIARY OF THE AMERICAN AGRI- CULTURAL CHEMICAL CO., NEW YORK, N. Y.	
5316	Bowker's 16% Acid Phosphate, -----	J. D. Lunden, Cloe, -----
	CENTRAL CHEMICAL CO., HAGERSTOWN, MD.	
5720	Gro-All Dissolved Phosphate, -----	M. R. Brumbaugh & Son, Martinsburg, -----
	THE COE-MORTIMER COMPANY, SUB- SIDIARY OF THE AMERICAN AGRI- CULTURAL CHEMICAL CO., NEW YORK, N. Y.	
5798	E. Frank Coe's 16% Super Phosphate, -----	Brown & Rea, Atglen, -----
5525	E. Frank Coe's 16% Super Phosphate, -----	Weaver & Weightman, Fayette City, ..
	COÖPERATIVE G. L. F. EXCHANGE, INC., NEW YORK, N. Y.	
5586	G. L. F. Acid Phosphate 16%, -----	Corry Milling & Supply Co., Corry, -----
	DUMONT FERTILIZER CO., INC., PHILADELPHIA, PA.	
5399	Acid Phosphate, -----	C. L. Bowersox, Middleburg, -----

PHOSPHATE FERTILIZERS.

phoric Acid.

Moisture.	PHOSPHORIC ACID.						Selling price per ton at place of selection.	Chemist's number.
	Total.		Available.		Insoluble.			
	Found.	Guaranteed.	Found.	Guaranteed.	Found.	Guaranteed.		
%	%	%	%	%	%	%	\$	
8.48	17.45	17.00	16.57	16.00	0.88	1.00	18 50	5313
6.52	16.67	17.00	16.04	16.00	0.63	1.00	18 50	5392
8.51	16.83	17.00	*15.45	16.00	1.38	1.00	18 00	5425
2.80	17.57	17.00	16.07	16.00	1.50	1.00	18 00	5756
4.59	17.22	17.00	16.66	16.00	0.56	1.00	14 00	5458
3.43	17.05	17.00	16.31	16.00	0.74	1.00	16 00	5721
4.81	17.54	17.00	16.02	16.00	1.52	1.00	16 00	5576
1.60	17.92	17.00	17.30	16.00	0.62	1.00	17 00	5748
2.15	17.51	17.00	16.83	16.00	0.68	1.00	22 00	5697
3.37	17.17	17.00	16.21	16.00	0.96	1.00	-----	5753
5.64	17.81	17.00	16.45	16.00	1.36	1.00	18 00	5408
1.32	17.79	17.00	16.11	16.00	1.68	1.00	16 50	5779
6.38	17.81	17.00	16.04	16.00	1.77	1.00	16 00	5477
1.27	17.36	17.00	16.50	16.00	0.86	1.00	12 00	5787
2.97	19.16	17.00	18.28	16.00	0.88	1.00	17 50	5715
8.18	16.89	16.50	16.33	16.00	0.56	0.50	20 00	5328
5.53	17.25	16.50	16.75	16.00	0.50	0.50	14 00	5367
1.32	17.03	16.50	16.49	16.00	0.54	0.50	23 00	5693
5.97	16.83	16.50	15.91	16.00	0.92	0.50	18 00	5393
8.82	17.25	16.00	17.11	16.00	0.14	-----	20 00	5320
3.39	17.48	16.00	17.32	16.00	0.16	-----	16 00	5771
8.64	17.39	17.00	16.25	16.00	1.14	1.00	18 00	5316
1.32	17.64	16.50	16.72	16.00	0.92	0.50	17 00	5720
4.95	17.50	17.00	16.04	16.00	1.46	1.00	13 50	5798
4.11	17.67	17.00	16.47	16.00	1.20	1.00	24 00	5525
2.50	18.60	16.50	18.38	16.00	0.22	0.50	20 00	5586
8.55	17.82	16.50	17.28	16.00	0.54	0.50	17 55	5399

*Deficient.

TABLE VII.—ACIDULATED

Chemist's number.	Name of Manufacturer and Brand.	Sample Taken From—
	EUREKA CHEMICAL COMPANY, BALTIMORE, MD.	
5757	Eureka 16% Acid Phosphate, -----	W. H. Nesbit, McConnellsburg, -----
	GRIFFITH & BOYD CO., BALTIMORE, MD.	
5315	Griffith & Boyd Co.'s High Grade 16% Acid Phosphate.	Mahoning Hardware & Implement Co., Punkstutawney.
	J. & J. GUANO CO., ROANOKE, VA.	
5520	Standard J. & J. 16% Acid Phosphate, ----	J. K. Lawson, Washington, -----
	M. P. HUBBARD & CO., INC., BALTIMORE, MD.	
5360	Hubbard's Dissolved Phosphate, -----	Willis Gill, Atglen, -----
	THE HUBBARD FERTILIZER COMPANY, BALTIMORE, MD.	
5726	Hubbard's 16% Acid Phosphate, -----	G. H. Super, Newport, -----
	INTERNATIONAL AGRICULTURAL COR- PORATION, BUFFALO, N. Y.	
5593	Buffalo 16 Per Cent., -----	Chas. W. King, Cooperstown, -----
	LANCASTER BONE FERTILIZER COM- PANY, LANCASTER, PA.	
5494	Conestoga Brand High Grade Acid Phos- phate.	Johnson Byer Hardware Co., Rural Valley.
	LEBANON FERTILIZER WORKS, LEBANON, PA.	
5438	Levan's Super-Phosphate 0-16-0, -----	Solomon & Waltz, Antes Fort, -----
	F. E. LORD, ESPY, PA.	
5370	Acid Phosphate, -----	F. E. Lord, Espy, -----
	THE MILLER FERTILIZER CO., BALTIMORE, MD.	
5447	Miller's Acid Phosphate, -----	H. L. Ort, Pennsdale, -----
	G. OBER & SONS COMPANY, BALTIMORE, MD.	
5774	Ober's High Grade Acid Phosphate, -----	Culbertson Elevator Co., Culbertson, --
5572	Ober's High Grade Acid Phosphate, -----	John H. Duttera, New Oxford, -----
5497	Ober's High Grade Acid Phosphate, -----	Wm. Gates Estate, Kittanning, -----
5429	Ober's High Grade Acid Phosphate, -----	Solomon & Waltz, Antes Fort, -----
5620	Ober's High Grade Acid Phosphate, -----	Geo. Walters & Sons, Butler, -----
	OYLER & SPANGLER FERTILIZER WORKS, INC., GETTYSBURG, PA.	
5568	O. & S. 16%, -----	M. J. Shaeffer, Hanover, -----
	PATAPSCO GUANO COMPANY, SUBSI- DIARY OF THE AMERICAN AGRICUL- TURAL CHEMICAL CO., BALTIMORE, MD.	
5516	Patapasco High Grade Acid Phosphate, ----	Russell Brothers, Washington, -----
5626	Patapasco High Grade Acid Phosphate, ----	E. C. Thomas, Gettysburg, -----
5701	Patapasco High Grade Acid Phosphate, ----	F. P. Waite, Tyrone, -----
	PATUXENT GUANO COMPANY, BALTIMORE, MD.	
5763	Patuxent High Grade Acid Phosphate, ----	Walker, Diehl & Walker, Chambersburg.
	PENNSYLVANIA FARMERS COOPERA- TIVE FEDERATION, INC., PHILADEL- PHIA, PA.	
5684	P. F. C. F. Acid Phosphate, -----	Clearfield County Cooperative Associa- tion, Inc., Clearfield.

PHOSPHATE FERTILIZERS—Continued.

Moisture.	PHOSPHORIC ACID.						Selling price per ton at place of selection.	Chemist's number.
	Total.		Available.		Insoluble.			
	Found.	Guaranteed.	Found.	Guaranteed.	Found.	Guaranteed.		
%	%	%	%	%	%	%	\$	
1.89	17.46		16.72	16.00	0.74	0.50	18 50	5757
6.65	16.67	17.00	16.35	16.00	5.32	1.00	25 00	5315
8.48	17.73	18.00	17.57	16.00	0.16	2.00	22 00	5520
8.67	16.91	16.50	16.67	16.00	0.24	0.50	14 50	5300
1.76	17.44	17.00	16.60	16.00	0.84	1.00	14 50	5726
5.25	17.31	17.00	16.03	16.00	1.28	1.00	19 00	5593
5.71	17.64	17.00	16.56	16.00	1.08	1.00	17 50	5494
8.10	16.24	17.00	16.10	16.00	0.14	1.00	17 50	5438
10.50	17.00	16.50	16.92	16.00	0.08	0.50	16 20	5370
4.63	17.21	16.50	16.69	16.00	0.52	0.50	18 25	5447
3.85	17.87	17.00	17.75	16.00	0.12	1.00	15 50	5774
8.21	18.84	17.00	17.70	16.00	1.14	1.00	14 73	5572
7.63	17.69	17.00	17.51	16.00	0.18	1.00	20 00	5497
9.25	17.28	17.00	17.16	16.00	0.12	1.00	17 50	5429
2.42	18.92	17.00	18.60	16.00	0.32	1.00	20 00	5620
6.13	17.18	16.50	16.46	16.00	0.72	0.50	16 00	5508
5.62	17.74	17.00	17.60	16.00	0.14	1.00	24 00	5516
2.95	18.36	17.00	16.88	16.00	1.48	1.00	17 00	5626
1.82	18.27	17.00	16.65	16.00	1.62	1.00	18 00	5701
1.09	18.73	17.00	17.41	16.00	1.32	1.00	16 65	5763
2.40	17.60	17.00	16.28	16.00	1.32	1.00	20 50	5684

TABLE VII.—ACIDULATED

Chemist's number.	Name of Manufacturer and Brand.		Sample Taken From—	
5702	THE PIEDMONT MT. AIRY GUANO CO., BALTIMORE, MD. Piedmont 16% Acid Phosphate, -----		H. L. Orr, Tyrone, -----	
5512	PITTSBURGH PROVISION & PACKING CO., PITTSBURGH, PA. High Grade Acid Phosphate, -----		Pittsburgh Provision & Packing Co., Pittsburgh.	
5801	THE RASIN-MONUMENTAL CO., SUBSI- DIARY OF THE VIRGINIA CAROLINA CHEMICAL CO., BALTIMORE, MD. Rasin's 16% Acid Phosphate, -----		E. H. Keen & Son, Parkesburg, -----	
5404	F. S. ROYSTER GUANO COMPANY, BALTIMORE, MD. Royster's 16% Acid Phosphate, -----		Geo. S. Chalfont, Milton, -----	
5354	Royster's 16% Acid Phosphate, -----		Great Valley Mills Co., Exton, -----	
5507	Royster's 16% Acid Phosphate, -----		G. W. Walton Hardware Co., Beaver, --	
5506	Royster's 18% Acid Phosphate, -----		G. W. Walton Hardware Co., Beaver, --	
5321	SWACKS FERTILIZER WORKS, DUBOIS, PA. Swack's 16% Acid Phosphate, -----		Brookville Auto Co., Brookville, -----	
5689	SWIFT & COMPANY, BALTIMORE, MD. Swift's High Grade Acid Phosphate Ferti- lizer 16%.		Clearfield County Cooperative Associa- tion, Inc., Clearfield.	
5412	Swift's High Grade Acid Phosphate Ferti- lizer 16%.		The Millinburg Farmers Exchange, Inc., Millinburg.	
5777	I. P. THOMAS & SON COMPANY, PHILADELPHIA, PA. 16% Acid Phosphate, -----		C. E. Starr, Three Springs, -----	
5347	F. W. TUNNELL & CO., INC., PHILADELPHIA, PA. F. W. Tunnell & Co.'s Acid Phosphate, --		Edw. Brinton & Sons, West Chester, --	
5588	VIRGINIA-CAROLINA CHEMICAL COM- PANY (OF DELAWARE), NEW YORK, N. Y. V-C Universal Brand, -----		E. I. Smith & Co., Union City, -----	
5762	YORK CHEMICAL WORKS, YORK, PA. 16% Acid Phosphate, -----		Enos H. Horst, Chambersburg, -----	
5341	16% Acid Phosphate, -----		Harry Pyle & Sons, Chadds Ford Junc- tion.	
5521	16% Acid Phosphate, -----		Thompson & Fordyce, Waynesburg, -- Average, -----	
5348	LOW GRADE FORMULAS. THE AMERICAN AGRICULTURAL CHEM- ICAL CO., NEW YORK, N. Y. Basic Lime Phosphate, -----		Edw. Brinton & Sons, West Chester, ---	
5723	Basic Lime Phosphate, -----		H. L. Stultz & Brother, Williamsburg, --	
5391	Basic Lime Phosphate, -----		W. B. Winey & Son, Middleburg, -----	
5557	Lister's Lime Phosphate, -----		E. E. & W. J. L. Walker, Kinzers, -----	
5776	BAUGH & SONS COMPANY, PHILADELPHIA, PA. Baugh's Lime and Phosphate, -----		P. J. Briggs, Mt. Union, -----	
5642	CENTRAL CHEMICAL CO., HAGERSTOWN, MD. Carbo Lime Phosphate, -----		Dillsburg Grain & Milling Co., Dillsburg,	

PHOSPHATE FERTILIZERS—Continued.

Moisture.	PHOSPHORIC ACID.						Selling price per ton at place of selection.	Chemist's number.
	Total.		Available.		Insoluble.			
	Found.	Guaranteed.	Found.	Guaranteed.	Found.	Guaranteed.		
%	%	%	%	%	%	%	\$	
1.36	18.13	17.00	17.67	16.00	0.46	1.00	19 00	5702
2.10	17.71	17.00	17.47	16.00	0.24	1.00	20 00	5512
1.41	18.78	17.00	17.98	16.00	0.80	1.00	13 50	5801
8.30	18.01	16.50	17.49	16.00	0.52	0.50	17 00	5404
8.44	18.00	16.50	17.48	16.00	0.52	0.50	18 00	5354
1.96	18.96	16.50	18.38	16.00	0.58	0.50	21 50	5507
3.16	20.69	18.50	19.25	18.00	1.44	0.50	23 00	5506
5.86	17.00	16.50	16.56	16.00	0.44	0.50	19 00	5321
3.18	17.62	16.00	17.12	16.00	0.50	-----	-----	5689
7.20	16.25	16.00	16.15	16.00	0.10	-----	16.00	5412
2.43	17.83	16.50	17.17	16.00	9.66	0.50	16 50	5777
7.67	17.21	17.00	16.01	16.00	1.20	1.00	21 00	5347
4.05	17.91	17.00	17.13	16.00	0.78	1.00	20 00	5588
8.51	16.46	16.00	16.28	16.00	0.18	-----	17 00	5762
8.77	16.46	16.00	16.38	16.00	0.08	-----	17 50	5341
9.18	16.21	16.00	16.03	16.00	0.18	-----	21 50	5521
5.05	17.58	-----	16.85	-----	0.73	-----	\$18 12	-----
1.62	15.64	14.00	13.00	13.00	2.64	1.00	14 00	5348
1.17	15.42	14.00	13.03	13.00	2.20	1.00	22 00	5723
2.50	15.61	14.00	12.93	13.00	2.10	1.00	18 50	5393
1.35	15.27	14.00	*12.46	13.00	2.84	1.00	18 00	5357
1.35	14.43	13.00	*12.79	13.00	1.60	-----	-----	5776
4.36	16.00	14.00	14.54	13.00	1.46	1.00	16 50	5642

*Deficient.

TABLE VII.—ACIDULATED

Chemist's number.	Name of Manufacturer and Brand.	Sample Taken From—
5767	Carbo Lime Phosphate, ----- G. OBER & SONS COMPANY, BALTIMORE, MD.	Strickler & Gillan, Greencastle, -----
5441	Ober's Lime Phosphate, ----- PATAPSCO GUANO COMPANY, SUBSI- DIARY OF THE AMERICAN AGRICUL- TURAL CHEMICAL CO., BALTIMORE, MD.	Solomon & Waltz, Antes Fort, -----
5733	Patapsco Lime (Crow Brand) Phosphate, F. S. ROYSTER GUANO COMPANY, BALTIMORE, MD.	B. F. Horting, Newport, -----
5527	Royster's Lime Phosphate, -----	C. D. Chamberlain, S. Brownsville, ---- Average, ----- Total average, -----

PHOSPHATE FERTILIZERS—Concluded.

Moisture.	PHOSPHORIC ACID.						Selling price per ton at place of selection.	Chemist's number.
	Total.		Available.		Insoluble.			
	Found.	Guaranteed.	Found.	Guaranteed.	Found.	Guaranteed.		
% 4.11	% 14.69	% 14.00	% 13.39	% 13.00	% 1.30	% 1.00	\$ 15.50	5767
7.55	15.77	14.00	12.87	13.00	2.90	1.00	18 00	5441
1.24	15.37	14.00	13.48	13.00	1.89	1.00	15 75	5733
1.50	16.26	13.50	13.94	13.00	2.32	0.50	25 00	5527
2.67	15.44	-----	13.24	-----	2.20	-----	\$18 92	
4.73	17.30	-----	16.37	-----	0.93	-----	\$18 22	

*Deficient.

TABLE VIII.—ROOK AND
Furnishing Phosphoric

Chemist's number.	Name of Manufacturer and Brand.	Sample Taken From—
	HIGH GRADE FORMULAS. THE AMERICAN AGRICULTURAL CHEMICAL CO., NEW YORK, N. Y.	
5426	E. Frank Coe's Big 15 Mixture, -----	Geo. A. Konkle, Montoursville, -----
5786	Crocker's Globe Phosphate, -----	Farmers Supply Co., New Castle, -----
5792	Victory Phosphate and Potash, -----	H. P. Passmore & Brother, Oxford, -----
5700	Victory Phosphate and Potash, -----	F. P. Waite, Tyrone, -----
5707	XXX Phosphate and Potash, -----	Claude Davis, Windber, -----
	ARMOUR FERTILIZER WORKS, BALTI- MORE, MD.	
5773	Armour's Big Crop Fertilizer 0-10-14, ----	Culbertson Elevator Co., Culbertson, ---
5722	Armour's Big Crop Fertilizers 0-12-6, ----	M. R. Brumbaugh & Son, Martinsburg, ---
5528	Armour's Big Crop Fertilizers 0-12-6, ----	Geo. L. Moore, Brownsville, -----
	BAUGH & SONS COMPANY, PHILA- DELPHIA, PA.	
5380	Baugh's 12 and 5 Phosphbte and Potash Mixture. -----	Edward Wargo, Danville, -----
	BOWKER FERTILIZER COMPANY, SUB- SIIDIARY OF THE AMERICAN AGRI- CULTURAL CHEMICAL CO., NEW YORK, N. Y.	
5317	Bowker's Ten and Eight, -----	J. D. Lundon, Cloe, -----
	CENTRAL CHEMICAL CO., HAGERS- TOWN, MD.	
6750	Gro-All Potash Special, -----	Francis Baker, Everett, -----
	GRIFFITH & BOYD CO., BALTIMORE, MD.	
5493	Griffith & Boyd Co.'s XX Potash Manure, -----	Dayton Milling Co., Dayton, -----
	THE HUBBARD FERTILIZER COM- PANY, BALTIMORE, MD.	
5484	Hubbard's High Grade Potash Mixture, --	H. B. Low & Son, Orangeville, -----
5725	Hubbard's High Grade Potash Mixture, --	G. H. Super, Newport, -----
5486	Hubbard's 12-5 Alkaline, -----	H. B. Low & Son, Orangeville, -----
5724	Hubbard's 12-5 Alkaline, -----	G. H. Super, Newport, -----
	INTERNATIONAL AGRICULTURAL CORPORATION, BUFFALO, N. Y.	
5589	Buffalo Phosphate and Potash 12-2, -----	E. L. Smith & Co., Union City, -----
	THE JARECKI CHEMICAL CO., (ARMOUR OWNED), SANDUSKY, OHIO.	
5601	Jarecki Fertilizer 0-12-4, -----	J. L. Alcorn, Titusville, -----
	LANCASTER BONE FERTILIZER COM- PANY, LANCASTER, PA.	
5495	Conestoga Brand Keystone, -----	Johnson Byer Hardware Co., Rural Val- ley, -----
5456	Conestoga Brand Standard Potash Mixture, -----	E. B. Fritz & Sons Co., Quarryville, --
	LEBANON FERTILIZER WORKS, LEB- ANON, PA.	
5439	Levan's Peerless Potash Mixture 0-10-8, ----	Solomon & Waltz, Antes Fort, -----
5373	F. E. LORD, ESPY, PA. Columbia County Fall Special, -----	F. E. Lord, Espy, -----

POTASH FERTILIZERS.

Acid and Potash.

Moisture.	PHOSPHORIC ACID.						POTASH.				Selling price per ton at place of selection.	Chemist's number.
	Total.		Available.		Insoluble.		Found.	Guaranteed.	Present as Muriate.	Present as Sulphate.		
	Found.	Guaranteed.	Found.	Guaranteed.	Found.	Guaranteed.						
%	%	%	%	%	%	%	%	%	%	%	\$	
9.72	13.23	13.00	12.39	12.00	0.84	1.00	3.67	3.00	3.67	-----	26 75	5426
3.46	11.31	11.00	9.89	10.00	1.42	1.00	9.30	8.00	9.30	-----	34 00	5786
5.25	13.02	13.00	12.03	12.00	0.99	1.00	5.72	5.00	5.72	-----	22 00	5792
5.81	13.04	13.00	12.20	12.00	0.84	1.00	5.41	5.00	5.41	-----	25 50	5700
3.38	12.13	11.00	10.75	10.00	1.38	1.00	8.62	8.00	8.62	-----	30 00	5707
4.10	10.43	10.50	10.01	10.00	0.42	0.50	4.33	4.00	4.33	-----	22 00	5773
6.97	13.09	12.50	12.39	12.00	0.70	0.50	5.94	6.00	5.94	-----	24 25	5722
8.80	12.51	12.50	12.05	12.00	0.46	0.50	6.48	6.00	6.48	-----	35 00	5528
8.50	12.86	12.00	11.81	12.00	1.05	-----	5.77	5.00	5.77	-----	26 00	5380
9.23	11.65	11.00	10.35	10.00	1.30	1.00	8.00	8.00	8.00	-----	28 30	5317
7.23	12.97	12.50	*11.69	12.00	1.28	0.50	5.04	5.00	5.04	-----	27 00	5750
5.86	10.75	11.00	10.39	10.00	0.36	1.00	5.18	5.00	5.18	-----	24 50	5493
4.37	9.87	11.00	*9.26	10.00	0.31	1.00	4.49	4.00	4.49	-----	22 50	5484
1.60	11.12	11.00	10.34	10.00	0.78	1.00	4.38	4.00	4.38	-----	19 60	5725
5.55	13.25	13.00	12.19	12.00	1.06	1.00	5.24	5.00	5.24	-----	24 50	5486
1.80	13.42	13.00	12.34	12.00	1.08	1.00	5.06	5.00	5.06	-----	21 15	5724
5.00	12.44	13.00	12.02	12.00	0.42	1.00	2.52	2.00	2.52	-----	30 00	5589
6.19	13.34	12.50	12.48	12.00	0.86	0.50	4.95	4.00	4.95	-----	34 00	5601
6.70	10.70	11.00	10.00	10.00	0.70	1.00	3.92	4.00	3.92	-----	25 00	5495
8.12	12.60	13.00	*11.73	12.00	0.87	1.00	5.22	5.00	5.22	-----	22 25	5456
5.50	10.77	11.00	10.63	10.00	0.14	1.00	8.18	8.00	8.18	-----	27 00	5439
8.16	12.87	12.50	12.81	12.00	0.06	0.50	6.28	5.00	6.28	-----	22 00	5373

*Deficient.

TABLE VIII.—ROCK AND

Chemist's number.	Name of Manufacturer and Brand.	Sample Taken From—
5420	THE MILLER FERTILIZER CO., BALTI-MORE, MD. Miller's 12-5, -----	Herman Keebler, Montoursville, -----
5775	G. OBER & SONS COMPANY, BALTI-MORE, MD. Ober's Standard Potash Compound, -----	Culbertson Elevator Co., Culbertson, ---
5433	Ober's Standard Potash Compound, -----	Solomon & Waltz, Antes Fort, -----
5631	OYLER & SPANGLER FERTILIZER WORKS, INC., GETTYSBURG, PA. O. & S. Potash Special, -----	G. W. Koser, Biglerville, -----
5764	PATUXENT GUANO COMPANY, BALTI-MORE, MD. Patuxent 12-5 Mixture, -----	Walker, Diehl & Walker, Chambersburg,
5563	Patuxent 12-5 Mixture, -----	M. F. Waser, York, -----
5655	PIEDMONT MT. AIRY GUANO CO., BALTIMORE, MD. Piedmont Special Potash Mixture, -----	John B. Bueher, Ephrata, -----
5480	RASIN-MONUMENTAL CO., SUBSIDI-ARY OF THE VIRGINIA-CAROLINA CHEMICAL CO., BALTIMORE, MD. Rasin's Special Phosphate and Potash, ---	H. B. Low & Son, Orangeville, -----
5595	F. S. ROYSTER GUANO COMPANY, BALTIMORE, MD. Royster's 10-8 Phosphate and Potash, ---	J. L. Alcorn, Titusville, -----
5489	Royster's 12-5 Phosphate and Potash, ---	The Kase Store, Riverside, -----
5795	THE SCOTT FERTILIZER COMPANY, ELKTON, MD. Scott's Soluble Phosphate and Potash 12-5,	Edw. W. Rupert, Oxford, -----
5731	THE STANDARD CHEMICAL WORKS, INC., WOMELSDORF, PA. Standard 0-12-5, -----	B. F. Hortling, Newport, -----
5491	SWACKS FERTILIZER WORKS, DU-BOIS, PA. Swacks Phosphate and Potash, -----	R. C. Wilson, Dayton, -----
5490	Swacks Super-Phosphate, -----	R. C. Wilson, Dayton, -----
5415	SWIFT & COMPANY, BALTI-MORE, MD. Swift's Special High Grade Phosphate and Potash 0-12-5, -----	The Mifflinburg Farmers Exchange, Inc., Mifflinburg, -----
5806	Swift's Wheat Grower Phosphate and Potash 0-12-2, -----	Pomona #3 Exchange, West Chester, --
5389	LOW GRADE FORMULAS. THE AMERICAN AGRICULTURAL CHEMICAL CO., NEW YORK, N. Y. Big Crop Phosphate, -----	Average, -----
5614	Bradley's Phosphate and Potash, -----	W. B. Winey & Son, Middleburg, -----
5449	Josiah Cope's Universal Mixture, -----	Geo. Ifft & Sons, Evans City, -----
5419	Lister's Potash Mixture, -----	Jones Eavenson, Christiana, -----
5709	Ludlam's Cereops I. X. L. Brand, -----	R. Foster & Son, Mifflinburg, -----
5444	Nassau Royal Mixture, -----	Claude Davis, Windber, -----
5746	Pollock's Victor Brand, -----	Frank L. Allen, Allenwood, -----
5409	Tygert's Big Crop Grower, -----	John Shlrey, Lewistown, -----
		Wolfe & Huffman, Watsonstown, -----

POTASH FERTILIZERS—Continued.

Moisture.	PHOSPHORIC ACID.						POTASH.				Selling price per ton at place of selection.	Chemist's number.
	Total.		Available.		Insoluble.		Found.	Guaranteed.	Present as Muriate.	Present as Sulphate.		
	Found.	Guaranteed.	Found.	Guaranteed.	Found.	Guaranteed.						
%	%	%	%	%	%	%	%	%	%	%	\$	
6.76	12.64	12.50	12.10	12.00	0.54	0.50	5.51	5.00	5.51	-----	23 00	5420
7.60	13.78	13.00	12.66	12.00	1.12	1.00	6.14	6.00	6.14	-----	24 75	5775
10.08	13.84	13.00	12.86	12.00	0.98	1.00	6.28	6.00	6.28	-----	27 00	5433
6.74	12.95	12.50	12.37	12.00	0.58	0.50	*4.50	5.00	4.50	-----	26 00	5631
6.08	13.56	13.00	12.32	12.00	1.24	1.00	5.15	5.00	5.15	-----	24 50	5764
7.85	13.43	13.00	12.13	12.00	1.30	1.00	*3.86	5.00	3.86	-----	26 50	5563
5.11	12.18	11.00	10.86	10.00	1.32	1.00	5.45	5.00	5.45	-----	22 00	5655
7.25	11.98	11.00	10.02	10.00	1.96	1.00	5.02	5.00	5.02	-----	23 50	5480
7.02	11.21	10.50	10.25	10.00	0.96	0.50	8.22	8.00	8.22	-----	35 00	5595
9.15	13.32	12.50	12.04	12.00	1.28	0.50	5.02	5.00	5.02	-----	23 50	5489
3.80	12.70	-----	11.87	12.00	0.83	1.00	5.42	5.00	5.42	-----	22 00	5795
6.47	12.81	13 00	11.94	12.00	0.87	1.00	*4.66	5.00	4.66	-----	23 35	5731
6.03	11.04	11.00	10.18	10.00	0.86	1.00	4.89	4.00	4.89	-----	27 25	5491
5.70	13.04	13.00	12.70	12.00	0.34	1.00	5.06	5.00	5.06	-----	29 75	5496
6.58	12.05	12.00	11.99	12.00	0.06	-----	4.82	5.00	4.82	-----	23 83	5415
6.34	12.35	12.00	12.07	12.00	0.28	-----	2.16	2.00	2.16	-----	-----	5806
6.31	12.38	-----	11.53	-----	0.85	-----	5.42	-----	-----	-----	\$25 82	-----
6.90	8.62	9.00	7.90	8.00	0.72	1.00	4.96	5.00	4.96	-----	23 00	5389
6.00	11.99	11.00	11.17	10.00	0.82	1.00	2.01	2.00	2.01	-----	28 50	5614
4.90	8.30	9.00	*7.71	8.00	0.59	1.00	5.06	5.00	5.06	-----	21 00	5449
5.95	8.92	9.00	8.18	8.00	0.74	1.00	5.05	5.00	5.05	-----	25 00	5419
2.83	8.98	9.00	8.10	8.00	0.88	1.00	5.05	5.00	5.05	-----	27 00	5709
7.18	8.98	9.00	8.52	8.00	0.46	1.00	4.83	5.00	4.83	-----	23 05	5444
5.30	9.17	9.00	8.33	8.00	0.84	1.00	*4.79	5.00	4.79	-----	23 50	5746
5.40	8.52	9.00	7.96	8.00	0.56	1.00	5.08	5.00	5.08	-----	22 50	5109

*Deficient.

TABLE VIII.—ROCK AND

Chemist's number.	Name of Manufacturer and Brand.	Sample Taken From—
5521	ARMOUR FERTILIZER WORKS, BALTIMORE, MD. Phosphate and Potash No. 1 10-2, -----	W. H. Smith, Rural Valley, -----
5770	BAUGH & SONS COMPANY, PHILADELPHIA, PA. Baugh's Soluble Alkaline Super-Phosphate, -----	W. B. Thompson & Son, Waynesboro, --
5768	CENTRAL CHEMICAL CO., HAGERS-TOWN, MD. Gro-All Pioneer, -----	Strickler & Gillan, Greencastle, -----
5738	FARMERS FERTILIZER WORKS, ELIZABETHTOWN, PA. Farmers Economy, -----	I. B. Secrist, Millerstown, -----
5518	J. & J. GUANO CO., ROANOKE, VA. J. & J. Standard Guano, -----	J. K. Lawson, Washington, -----
5574	G. OBER & SONS COMPANY, BALTIMORE, MD. Ober's 10% Superphosphate and Potash, --	John H. Duttera, New Oxford, -----
5634	PATUXENT GUANO COMPANY, BALTIMORE, MD. Patuxent Alsatian Potash Mixture, -----	Cook Grain Feed & Supply Co., Dillsburg, -----
5765	Patuxent Alsatian Potash Mixture, -----	Walker, Diehl & Walker, Chambersburg, -----
5766	Patuxent Soluble Phosphate and Potash, --	Walker, Diehl & Walker, Chambersburg, -----
5800	THE RASIN-MONUMENTAL CO., SUBSIDIARY OF THE VIRGINIA-CAROLINA CHEMICAL CO., BALTIMORE, MD. Rasin's Special Potash Mixture, -----	E. H. Keen & Son, Parkesburg, -----
5481	Rasin's Phosphate and Potash Fertilizer, --	H. B. Low & Son, Orangeville, -----
5760	YORK CHEMICAL WORKS, YORK, PA. Ten and Two, -----	Enos H. Horst, Chambersburg, -----
		Average, -----
		Total average, -----

POTASH FERTILIZERS—Concluded.

POTASH FERTILIZERS												
Moisture.	PHOSPHORIC ACID.						POTASH.				Selling price per ton at place of selection.	Chemist's number.
	Total.		Insoluble.		Available.		Found.	Guaranteed.	Present as Muriate.	Present as Sulphate.		
	Found.	Guaranteed.	Found.	Guaranteed.	Found.	Guaranteed.						
%	%	%	%	%	%	%	%	%	%	%	\$	
4.80	10.35	10.50	10.07	10.00	0.28	0.50	2.21	2.00	2.21	-----	28 00	5531
5.65	10.91	10.00	10.07	10.00	0.84	-----	2.06	2.00	2.06	-----	21 50	5770
3.43	8.71	8.50	8.27	8.00	0.44	0.50	5.22	5.00	5.22	-----	19 50	5768
4.43	11.16	11.00	10.96	10.00	0.20	1.00	2.89	3.00	2.89	-----	22 00	5738
3.30	9.29	9.00	*6.52	8.00	2.77	1.00	2.78	2.50	2.78	-----	26 50	5518
8.25	11.26	11.00	10.18	10.00	1.08	1.00	2.50	2.00	2.50	-----	20 19	5574
4.05	8.89	9.00	7.83	8.00	1.06	1.00	5.03	5.00	5.03	-----	21 25	5634
2.21	8.80	8.50	*7.66	8.00	1.14	0.50	5.45	5.00	5.45	-----	21 55	5765
5.90	11.07	11.00	9.85	10.00	1.22	1.00	2.12	2.00	2.12	-----	21 00	5766
4.90	8.64	9.00	*7.29	8.00	1.35	1.00	*4.69	5.00	4.69	-----	20 00	5800
5.80	12.32	11.00	10.24	10.00	2.08	1.00	2.23	2.00	2.23	-----	21 50	5481
2.38	10.65	10.00	10.41	10.00	0.24	-----	2.17	2.00	2.17	-----	21 00	5760
4.97	9.78	-----	8.86	-----	0.92	-----	3.81	-----	-----	-----	\$22 88	-----
5.85	11.48	-----	10.61	-----	0.87	-----	4.86	-----	-----	-----	\$24 79	-----

*Deficient.

TABLE IX—MISCEL

Chemist's number.	Name of Manufacturer and Brand.	Sample Taken From—
	NITRATE OF SODA. GRIFFITH & BOYD CO., BALTIMORE, MD.	
5513	Nitrate of Soda, -----	Hoburg Brothers, Sharpsburg, -----
	F. E. LORD, ESPY, PA.	
5375	Nitrate of Soda, -----	F. E. Lord, Espy, -----
	RASIN-MONUMENTAL CO., SUBSIDI- ARY OF THE VIRGINIA-CAROLINA CHEMICAL CO., BALTIMORE, MD.	
5583	Nitrate of Soda, -----	L. A. Carlson, Warren, ----- Average, -----
	TANKAGE. ABBOTT PACKING CO., CARNEGIE, PA.	
5524	Slaughter House Tankage, -----	Abbott Packing Co., Carnegie, -----
	F. E. LORD, ESPY, PA.	
5374	Tankage, -----	F. E. Lord, Espy, -----
	SWIFT & COMPANY, BALTIMORE, MD.	
5691	Swift's Tankage, -----	Clearfield County Cooperative Associa- tion, Inc., Clearfield, ----- Average, -----
	KAINIT. F. S. ROYSTER GUANO COMPANY, BALTIMORE, MD.	
5602	Genuine German Kainit, -----	J. L. Alcorn, Titusville, -----
	MURIATE OF POTASH. THE AMERICAN AGRICULTURAL CHEMICAL CO., NEW YORK, N. Y.	
5533	Muriate of Potash, -----	E. J. Welch, Plumville, -----
	INTERNATIONAL AGRICULTURAL CORPORATION, BUFFALO, N. Y.	
5607	Muriate of Potash, -----	Coulter & Coulter, Grove City, -----
	F. E. LORD, ESPY, PA.	
5376	Muriate of Potash, -----	F. E. Lord, Espy, -----
	PENNSYLVANIA FARMERS COOPERA- TIVE FEDERATION, INC., PHILA- DELPHIA, PA.	
5685	Muriate of Potash, -----	Clearfield County Cooperative Associa- tion, Inc., Clearfield, -----
	RASIN-MONUMENTAL CO., SUBSIDI- ARY OF THE VIRGINIA-CAROLINA CHEMICAL CO., BALTIMORE, MD.	
5488	Muriate of Potash, -----	H. B. Low & Son, Orangeville, -----
	F. S. ROYSTER GUANO COMPANY, BALTIMORE, MD.	
5784	Muriate of Potash, -----	Farmers Supply Co., New Castle, -----
	SWACKS FERTILIZER WORKS, DU- BOIS, PA.	
5534	Muriate of Potash, -----	E. J. Welch, Plumville, ----- Average, -----

LANEUS FERTILIZERS.

Moisture.	Nitrogen.		PHOSPHORIC ACID.						POTASH.			Selling price per ton at place of selection.	Chemist's number.
	Found.	Guaranteed.	Total.		Available.		Insoluble.		Found.	Guaranteed.	Present as Muriate.		
			Found.	Guaranteed.	Found.	Guaranteed.	Found.	Guaranteed.					
%	%	%	%	%	%	%	%	%	%	%	%	\$	
0.41	15.77	15.00										80 00	5513
1.38	15.74	15.00										63 00	5375
0.28	15.75	14.82										72 00	5583
0.69	15.75											\$71 67	
5.45	5.01	4.62	15.15	16.72	6.19	6.04	8.96	10.68	0.47	0.11	0.47		5524
6.32	7.50	5.34	12.50	11.44								40 00	5374
5.05	7.82	7.40	10.54	5.00									5691
5.60	6.78		12.73									\$40 00	
7.78									15.44	12.40	15.44	60 00	5602
0.15									48.47	48.00	48.47	49 00	5533
0.23									50.10	49.00	50.10	60 00	5607
0.43									51.54	50.00	51.54	45 00	5376
0.59									51.83	48.00	51.83	51 00	5685
1.21									50.85	48.00	50.85	46 00	5488
1.62									50.33	48.00	50.33	100 00	5784
0.25									48.00	48-50	48.00	49 00	5534
0.64									50.16			\$57 14	



